

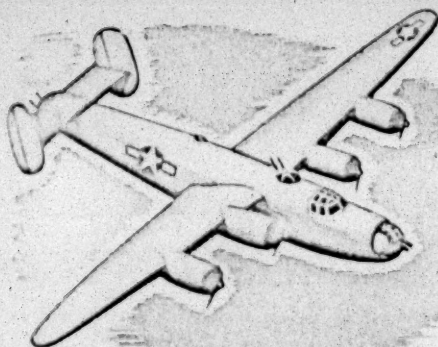
# TEXTILE BULLETIN

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NO. 6

MAY 24 1944



**For Heavy-Duty Performance,  
CAST STEEL is specified!**

Cast steel wire is used in aircraft control cable because of its strength and dependability. Years of experience have proved its worth where performance is a "must".

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are built around a core of cast steel wire, becoming one resilient mass of metal from end to end. Each individual Casteel Cord will sustain a load of 750 lbs.

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Steel terminals are die-cast directly onto the wire cord and into metal collar, assuring secure attachment. Leather ends easily attached for adjustment if desired.

Cast steel wire core—same as used in aircraft control cables—assures longer wear and minimum stretch.

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## Production Increase Is Goal of South Carolina Cotton Manufacturers

A DETERMINATION to do everything possible in meeting the textile needs of the various armed services was expressed by members of the Cotton Manufacturers Association of South Carolina during the organization's annual meeting at Greenville May 12. All officers of the association were re-elected at the one-day convention. These include B. F. Hagood of Easley, president; S. H. Swint of Graniteville, vice-president; Dr. William P. Jacobs of Clinton, executive vice-president and treasurer; and T. Frank Watkins of Anderson, general counsel. John K. Cauthen of Clinton was elected secretary. Earle R. Stall of Greenville, C. B. Hayes of Lyman and H. K. Hallett of Paw Creek, N. C., were retained as directors.

In his report of the association's activities during the past year, President Hagood touched on many subjects. He first referred to the unusual circumstances facing the industry, and particularly emphasized the fact that, in co-operation with the Army and the Navy and the government in prosecuting the war, the textile industry is faced with the necessity of producing more cloth than ever before with the simultaneous loss of employees to the services, shipbuilding yards, airplane factories and other war plants. He stated that heretofore the industry could look to the farms for its supply of extra help in an emergency, but now that Congress has assured farm workers of some relief from the draft under certain circumstances, even though the textile industry is declared as an essential industry, important to the war program and called upon for more cloth than ever before on account of the war, that the movement of the employees from the farms to the mills seems for the time being to be almost stopped. With the Army, the Navy, the Office of Civilian Requirements and Lend-Lease calling for an ever-increasing yardage of textiles, the cotton mills in South Carolina face the most critical period in their history. He called upon the employers and employees alike in the textile industry to make an extra effort to produce more textiles and in support of his appeal, quoted a statement made by Army Quartermaster General Edmund B. Gregory as follows:

As we reach the maximum in numbers and efficiency in the prosecution of the war it is equally important that we reach the maximum in war supplies. Textiles are used in so many indispensable products in supplying and clothing and otherwise equipping our armed forces it is necessary that I remind every textile worker in America at this critical time that our country is depending upon

the job you hold, the work you do and the cloth you help to make. We must have it and this must be just as compelling as the orders under which our boys are fighting. Our fighting implements in this all-out war are spindles and looms just as much as guns, ships, planes and ammunition.

Mr. Hagood also referred to remarks made by Donald M. Nelson, chairman of the War Production Board, as follows:

The nation is calling on you for greater cotton textile production. Steadily increasing quantities of these materials are needed to supply the requirements of the armed forces, and to provide essential clothing for our civilian population. With you, the weavers of the world, rests the responsibility for meeting these needs. It is a great and serious responsibility, for the needs are urgent and must be met now if we are to hasten the day of victory that lies ahead.

I am confident that when the full story of the cotton textile industry's contribution to the war effort is finally written, the prestige of this industry will occupy a high place in the public mind.

### Other Activities

In reviewing the work of the textile industry in South Carolina for the past year, President Hagood called attention to the fact that the association again gave \$2,000 for the prizes awarded to winners of the five-acre cotton contest in South Carolina during the past year and has authorized the renewal of the gift for another year.

He touched on the matters of compensation, insurance, taxation, traffic and social security, and told of the statistical and factual publicity material which the association had caused to be gathered and distributed during the year. He told of the national program of physical fitness in industry in which the textile industry has taken a part and of the current program of the Quartermaster Corps and the War Production Board, emphasizing the essential nature of cotton textiles and cotton jobs, and pledging the full co-operation of the industry in support of these war agencies in bringing to the people of America, and particularly the textile workers, the full appreciation of the importance of their jobs in the war program. He told of the progress in the organization of the J. E. Sirrine Textile Foundation with an endowment of \$1,000,000 for the purpose of textile supervisory and leadership training. He announced that the story of "Life in Mill Communities" had been

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# Textile Production Under Wartime Controls

By J. SPENCER LOVE

**T**HE fact must be faced that the battle is not yet over—in fact, it may be said literally that the fighting has scarcely begun. The shortage of manpower is getting worse. Before the middle of this year, close to a million persons must be added to the nation's direct fighting and working forces at one point or another, and in addition to this there will shortly be a seasonal demand for nearly three and a half million additional agricultural workers. Physical inventories of finished and unprocessed merchandise are, generally speaking, lower than they have been since the emergency began. Yet with all this, 1944 requirements for textiles as a whole are fully as great as last year and the year before, if not greater. War is a tremendous consumer of everything, and textiles are no exception.

I would be unrealistic if I didn't tell you at this point that the cotton yarn supply situation is today more critical than ever. The cotton spinning of the tire cords mills was available in 1942 and early 1943 but now all this yarn, and more besides, is needed for tire cord. Our duck program for the Army is currently far short of requirements, which means further necessary allocations of several million pounds more.

In addition to our own needs, our allies have been calling on us for large amounts of textiles, as well as other things, to help them carry on the fight. The textile shortage is a world-wide problem. Large sources of production in Europe and Japan have been cut off, and the British have been forced to trim down textile output in order to make way for other more needed direct war supplies. For these reasons we must send textiles abroad in increasing quantities. These products will be needed not only to help fill the minimum needs of our allied fighting forces and their hard-

pressed civilians, but they will also be needed to ease the strain on the impoverished people in liberated areas where support of our troops is a most valuable military asset. Thus you see that textiles have strategic importance, too, and I believe it can be stated without exaggeration that serious failure to meet 1944 goals could be almost as serious as a military defeat.

People in the industry whom I have met since I came to Washington have most frequently asked me what my broad impressions were, how I liked the job, and what I thought about it. I have been told that a great many people said of me that I was a person too impatient for action and too intolerant to adapt myself to the Washington scene, and that I would undoubtedly quit in disgust before very long. Well, I haven't quit yet, and it is my feeling that those who think it would be normal to be impatient in Washington are ones who do not understand what the real aims of the War Production Board are and how much has actually been accomplished by various government agencies.

It is true that it takes pretty long to get action in Washington and that most processes are slow. This very slowness, however, has many advantages and does serve for the protection of the average manufacturer. Often, half a dozen or more agencies have to pass on some new proposition or plan before it can go through. It is true these rounds of papers take a long time, but it is also true that some impulsive or hasty action which might have hurt a lot of people may be thus prevented. The government is taking a lot of responsibility when it seeks to tell private industry what it can do and what it cannot do. My observation in Washington has been that in innumerable instances delays and prolonged considerations have been vastly helpful in arriving at sounder solutions of problems; in fact, one definition or adage that one often recalls when in Washington is: "Time—God's Mighty Right Arm of Recompense"; it is amazing how many knotty problems settle themselves satisfactorily over a period of time.

So I think that often people who are too impatient with current Washington agencies do not understand the importance of present transitions and trends; the difficulties and ramifications of the average problems, nor do they understand the importance of what government control has actually accomplished. Take price control, for example. Many have occasion to complain about details, but who can gainsay but that price control as broadly applied to the textile industry has been not only a great boon and salvation to the public but to the industry as well, especially if the long pull angle is considered? Who, looking at the figure, can say that the textile industry as a whole has been hurt by regulation in the past few years, or is being seriously hurt even now?

One thing that has impressed me a great deal in Washington has been the spirit of co-operation between various



In October of last year Spencer Love became head of the War Production Board's textile, clothing and leather bureau. He took with him to Washington a thorough knowledge of the industry gained while president of Burlington Mills Corp., one of the trade's largest units, with headquarters at Greensboro, N. C. He has now directed the operations of one of WPB's most important divisions

for some seven months. The accompanying article gives Mr. Love's views on wartime government controls as seen through the eyes of a practical manufacturer rather than a professional bureaucrat. This article is an abstract of an address made last month to the National Association of Hosiery Manufacturers.

and sundry government agencies. Though it may not seem so to the average layman, there is strong evidence on all sides of attacking mutual problems in a concerted effort with the plan of achieving a common goal. It is true that all do not agree at all times as to the best remedy for each and every problem, and these differences of opinion are often annoying and delaying; yet because the various controlling agencies are representative of all groups and viewpoints—schools of thought if you please—ultimate solutions are generally much more apt to be weighed from every conceivable angle and thus to be those acceptable to the greatest number of people. This is the working of democracy in its essence.

In any event, the objectives—beyond the immediate prosecution of the war—of the various Washington agencies, including the War Production Board, might well be summarized by saying that the principal efforts are devoted to minimizing for the greatest number of people the disruptive influences of war on the economy and the avoidance of inequities insofar as is reasonably possible. At this point I might add that nowhere have I contacted in the important posts in Washington men who had any thought of continuing current industry war controls beyond the current emergency. There is not a man I know of participating in the imposition of a new ban or restriction who does not pray for the early arrival of the day when such restrictions

and all similar ones may be lifted. They all know that basically the essence of democracy is the avoidance of compulsion rather than its perfection. That by and large regimentation is no part of democracy but actually only reveals it in its weakest, less efficient aspects.

Primary among these weaknesses, and one calling most importantly for restrictions and regimentation, is the fact that the world contains so many different kinds of people; the honest and the dishonest, the patriotic and the unpatriotic, the selfish and the unselfish. Fortunately, the dishonest, unpatriotic and selfish people are greatly in the minority. Yet the existence of these few is one of the primary reasons that government must step in during wartime and see that the burdens and sacrifices of the emergency are equalized insofar as is possible, with a minimum amount of disruption to free and democratic enterprise.

It worries us today in Washington that there seems to be in some quarters of industry a lessening consciousness of the foregoing needs and principles, a growing impatience with government and its controls—even in some instances a diminishing willingness to make co-operative sacrifices. There is too much of the feeling that the war is already won and why worry about controls. Yet, as I have told you before, insofar as nearly all types of textiles are concerned all our facts and figures indicate that the greatest

*(Continued on Page 54)*

## Murchison Gives Views on Supply of Low-End Textiles

**C**HARGES that the textile industry is deliberately cutting down the production of denim, chambray and similar low-priced items used in work clothing were vigorously denounced May 6 by Dr. C. T. Murchison, president of the Cotton-Textile Institute, Inc., at a hearing before the House banking and currency committee on extension of the price control law.

Dr. Murchison took issue especially with James B. Carey of the CIO, who recently charged that mills are cutting down the output of low-cost items in order to force higher ceilings. Dr. Murchison in rebuttal submitted the following figures on denim production in yards: 1938, 219,000,000; 1939, 230,000,000; 1940, 234,000,000; 1941, 325,000,000; 1942, 296,000,000; 1943, 266,000,000; 1944 (first quarter), 74,500,000. He explained the decline in 1942 and through 1943 by pointing out that on April 20, 1942, the War Production Board ordered that 20 per cent of the looms then on denim be diverted to the manufacture of osnaburgs for use in essential industrial and agricultural materials.

"If the rate of production achieved by mills during the first quarter of 1944, the very period that Mr. Carey asserts they were on strike, is maintained, production this year will amount to 300,000,000 yards," he said. "On the basis of these figures it is obvious that the recurrent shortages in civilian markets are due entirely to the diversion of so much production to the armed services.

"Ordinarily there have been reserve stocks at mills, garment plants and in the channels of distribution but they

have long since disappeared. Procurements of dungarees for our greatly enlarged Navy will require about 60,000,000 yards this year or some 20 per cent of production. There are about 13,000 looms now engaged in the manufacture of denims, which is higher than the average number of looms on denim in pre-war years. The WPB has ordered all of these looms frozen to produce denims exclusively and has estimated that the armed forces, war aid and civilian requirements for 1944 at 400,000,000 yards. A broad integrated program by OPA, WMC and WPB will be required to attain the goal."

Regarding production of chambrays for work shirts, Dr. Murchison said that in March, 1944, the last month for which figures are available, production was higher than in any of the 11 previous months, amounting to 6,454,000 yards as compared with 5,191,000 yards in February and 4,834,000 yards in January. Over a period of two years, he explained, the Navy has taken about 65 per cent of the 3.90-yard chambray for work shirts.

Answering charges concerning shortages of work gloves, he pointed out that these gloves are for the most part made of fabrics known as "canton flannel." He submitted the following figures on production of these fabrics: 1941, 44,045,000 yards; 1942, 52,217,000; 1943, 52,786,000; 1944—January, 5,666,000; February, 5,310,000; March, 5,571,000. He added that WPB has frozen all looms making this cloth and has ordered that 85 per cent of the production of mills be sold only to work glove manufacturers.



# Research and Higher Education In Textiles

By DR. R. F. POOLE

President, Clemson College

IT IS inevitable that commendable research activities and high educational philosophies animating from the leadership in the textile industry will have beneficial effect on the textile schools as well as be for the good of the textile industry. It would be a very practical question to ask why has so important an industry not had this well-deserved research before, when most major industries have found the results of research profitable in so many cases.

In the past the textile schools were primarily concerned with training men to serve the mechanical, regulatory, and administrative functions within the manufacturing plants. Even the faculties of the textile schools were trained and were teaching on the same horizon. There was no incentive toward higher educational principles beyond the bachelor's degree such as obtained in the scientific training of agricultural and engineering workers. The condition was far from wholesome and was actually depressing to those thinking of and desiring stronger curricula and for a long time realizing the potential advantages the stronger educational program would offer.

## Demand Can Be Met

The textile schools can meet the demands for trained research workers. The colleges, of which these schools are a part, possess the faculty and equipment for offering a greater range of knowledge than that possessed by the bachelor's degree which is conventional in the textile schools at the present time. Fortunately for the textile schools they are a part of the land-grant college system where botany, chemistry and physics are maintained at the highest levels of perfection and are taught fundamentally and practically. It is in these courses that the student learns the fundamental properties of cellulose, proteins, lignins and the component properties of the substances used in the textile industry. It is encouraging now that textile students may henceforth be required to learn more about carbohydrates, proteins and the other basic elements of plant and animal products than has been necessary in the past. In order to meet the requirements requisite to solving the important problems of the industry and to discover and perfect new compositions, it will be necessary for them to become more intimate with science and master stronger teaching philosophies. The researcher to be real must possess the training and knowledge commonly classed as good doctor of philosophy standards. But there will be testing

and minor research tasks and problems that will respond to efforts of men of less ability. Since educational facilities of the highest order have been available in the land-grant colleges, although not adequately used in the past, reconstruction of curricula to meet the most meticulous training and education of the various classes of men needed throughout the industry will be a rather simple matter.

If I visualize accurately the desired training that prompted interests and actions of leadership in the textile industry, I assume that there will be in the beginning some confusion, some duplication of effort and possibly some glaring mistakes in diversifying and perfecting the patterns of the curricula and the research. But if this interest is real and sufficiently fortified financially to guarantee longevity and suppress the inevitable passing fancy there is now reason for optimism. To find research men of the achieving type will require time. Some individuals are certain to look for greater immediate progress than will be possible. Others will clamor for so-called practical research. But those familiar with accomplishments in research are aware of the fact that the most practical achievements arise from the most fundamental investigators but not necessarily the most brilliant investigators.

Let us fully realize that students are born with certain natural traits. Some have stronger good natural traits than others. The textile schools, because of the number of students definitely interested in textiles, are a splendid source of determining the natural abilities and of finding men who will fit into proper spheres of usefulness. Here, one familiar with students can often distinguish between the teacher, researcher, administrator, salesman, etc., types. Then the students have certain required traits. These are definitely manifest in his college record, which sets forth student interests and abilities. The student possessing good natural and acquired traits embodying an inquiring mind, infinite courage, enthusiasm, resourcefulness and good judgment is the kind of person desired and needed in the industry. It has been fairly well demonstrated in the experiences of colleges that knowledge, enthusiasm and inherent interest are powerful forces toward human achievement. Finding students who have proven their interest in textile endeavors whether they be potential organic chemists, physicists, administrators or plant and animal fiber specialists will be notably important. Then training them properly will constitute the next step. The manufacturer must play his part in the role of a stable employer. Employing meritorious investigators in prosperous periods and dispensing with them in distressing periods must not obtain. If these three steps are properly and ethically administered greater success is certain to come to the textile industry as it has in many other industries wherein the results of research have given new impetus to the industry.

There will be cases where the manufacturer will need his

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# The "GreX" Universal Yarn Numbering System

By A. G. SCROGGIE, E. I. du Pont de Nemours & Co.  
Chairman, Subcommittee B-2 on Nomenclature and Definitions  
Committee D-13, American Society of Testing Materials

THE use, in the textile industry, of various yarn numbering systems based on hanks, cuts, runs, leas, typps, deniers, spindles, etc., has caused trouble for many years. This confusion has become more intense recently with the penetration of yarns like rayon, nylon, vinyon, and Fortisan into the older cotton, linen, woolen, and worsted mills.

The difficulties by the use of various *unrelated* yarn numbering systems warrant the textile industry making a serious attempt to establish a *universal* yarn numbering system, and the standing committee on textiles of the American Society for Testing Materials is currently considering, for this purpose, the "GreX" unit defined as grams per 10,000 meters. The term "GreX" (plural grex, abbreviation gx.) is derived from GRams pER 10,000 meters—GR . . . E . . . X.

## The "GreX" Unit

The "GreX" is a *direct* unit based on "weight per unit length." Direct systems are currently used by the silk, rayon, nylon, vinyon, Fortisan, and jute industries. Direct units are also used by the cotton, linen, woolen, and worsted industries, for *tops and slivers*, and for the measurement of *individual fibers*.

The "GreX" numbering system has a number of advantages over length per unit weight (reciprocal) systems, as noted below.

1. Numbers can be determined by direct weighing and with a minimum of calculation when meter lengths are weighed in grams.

2. It has a large number for coarse yarns and cords, a small number of fine yarns, and unit numbers for single fibers or filaments. This avoids the use of unwieldy numbers for fine filaments. A one denier filament yarn, for instance, is number 5,315 cotton count or 14,882 woolen run.

3. A specific yarn number difference has the same value at all parts of the scale and not a variable value, as in reciprocal systems.

4. The equivalent single yarn number of plied and corded structures can be approximated by direct addition of

the numbers of the single yarns, whether or not they are of the same fineness. This avoids the complicated formula needed for all reciprocal units. Results must be modified for twist take-up, regardless of the system of calculation.

5. Extension of the system to include a Kilogrex unit (1,000 "GreX") provides a satisfactory measure for handling cords, rovings, tops, etc. These are not normally measured in regular cotton counts, woolen runs, etc., because of the small decimal fractions obtained for comparatively heavy structures.

6. Single wool fibers and cotton seed hairs are generally measured in microns (direct metric units, not in hanks, cuts, or runs). Using the known density of the fibers, widths in microns could be recorded in terms of "GreX" units, thus relating fibers directly with yarns. This is currently done in rayon staple where the 1.5 denier size is in common use.

7. The use of any universal, readily decimalized, direct unit, which covers this wide range from fiber to sliver, would facilitate control of yarn fineness in any mill spinning yarn from fibers, since the adjustments required in laps, slivers, or draft to correct variations in finished yarns will be strictly proportional to the variation observed in the yarn.

8. Strength can be expressed conveniently in grams per grex, which is readily measured. This avoids the comparatively awkward thousands of pounds per square inch, of hypothetical nonexistent structures.

## Difficulties To Be Expected

It is concluded that the introduction of any universal yarn numbering system will cause more or less trouble for a short time, particularly in the cotton, woolen, worsted, and other industries, if a direct unit is established, and it is probable that no one system will prove ideal for all branches of the textile industry. It is contended, however, that the physical changes would not be difficult to effect, since all operations now connected with yarn numbers could

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## COMPARISON OF PROPOSED "GREX" UNITS, AND OTHERS NOW IN COMMON USE

Universal GreX Grams per 10,000 m.	Woolen Run 1600 yds. per lb.	Cotton Hank 840 yds. per lb.	Worsted Hank 560 yds. per lb.	Linen Lea 300 yds. per lb.	General Typp 1000 yds. per lb.	Rayon Denier Grams per 9000 m.	General Grains per yd.	Jute Spindle Pounds per 14,400 yd.
1	3100.34*	5905.41*	8858.11*	16335.15*	4960.55†	0.9	0.0014	0.0029
100	31.00	59.05	88.58	163.35	49.61	90.0	0.14	0.290
200	15.50	29.53	44.29	82.68	24.80	180.0	0.28	0.580
1000 (1 Kgx)	3.10	5.91	8.85	16.54	4.96	900.0	1.41	2.903

\*Calculated from  $\frac{4.960.545}{\text{Yds. per hank (run) (lea)}} = \text{Yarn number.}$

†Calculated from  $10,000 \times 1.09361 \times 453.59243 = 4.960.545.6 \text{ yds. per lb.}$



# DEFENDANT: The Cotton Spinning Industry

## Speaker for the DEFENSE:

R. DAVE HALL, Secretary

Stowe Thread Co., Belmont, N. C.

THE subject assigned to me is "Cotton Yarn Supplies—Present and Prospective"; in the interest of time I could possibly dispose of the entire subject with just two words "Cotton Yarn Supplies Present" with the word "inadequate," and "Cotton Yarn Supplies—Prospective" with the word "indefinite."

I realize that today I stand before the best customers of the industry which I represent. In recent years there has been a tendency toward integrated plants in the weaving field, and, as a result, the sales yarn mills have had to look more and more to the knitting industry as an outlet for their product. Since the knitting industry was by far our best customer in normal times, I realize that you may not be feeling too kindly toward us today. You have, without question, a very definite reason for feeling as you do.



R. Dave Hall

A few years ago, when you accidentally let out the news that you might possibly on a certain date buy a few thousand pounds of yarn, the word traveled fast. When you arrived at your office on the appointed day you had to literally kick yarn salesmen and brokers out of your way in order to get through the lobby and into your private office. At the appointed hour they filed into your inner sanctum with pencils sharpened to the finest point; they made propositions; proposed special discounts; ruthlessly cut their competitor's prices; and would have gladly cut their throats in order to carry home the contract. But then one day things began to change. There were not so many salesmen present. Apparently, the news had not gotten out that you were in the market. And then, finally, the day came that you were face to face with the epitome of humiliation. You were forced to pick up the telephone and actually call your one-time favorite broker. And where did you find the poor devil, hiding under his desk, chagrined that after all these years of courting your favor, and the many sleepless nights during the Knitting Arts Exhibit; the mills he represented were sold up with not a pound left for his favorite customer.

I have always stayed away from a courthouse—just as far as possible. In fact, the last and one of the times that I was ever in one was to testify as to the character of one of my knitting friends who had fallen into the toils of the law. I am, therefore, ignorant of court procedure, but for a little while this afternoon I would like to assume the role

of "Attorney for the Defense" of the sales yarn industry, charged by its best customer with having not quite "done right by our little Nell."

You have often heard that you can prove anything by statistics. It is certainly true that many a speech has been ruined by them. I shall, therefore, not bore you with a lot of figures. Such figures as I shall use are approximate. They refer to combed sales yarn as produced by the Southern industry, and are only a barometer indicating percentages for the sales yarn industry as a whole. For the years 1937, 1938 and 1939, the last years which we can consider normal, our average annual production was 80,000,000 pounds of combed sales yarn. Of this total approximately 70 per cent was produced for the knitting industry—hosiery and underwear combined. Late in 1939, however, things began to happen. The European war was on and military authorities in this country began to expand their procurement program, particularly in the clothing field. Since the last war the Army had developed a new type of uniform cloth—the well known 8.2 twill, requiring in certain grades a combed yarn from extra staple cotton, and in other grades a high-quality carded yarn. In normal times this cloth had been produced in the integrated weaving mills, but now, with the increased demand, the weaving mills had to look to the sales yarn industry for auxiliary supplies of yarn. We welcomed this new outlet for our product. It meant the full-time production of our plants for the first time in more than a decade. The demand for our yarns, however, did not stop there, and during 1940 and early 1941 many additional items requiring the product of the sales yarn group were added to the procurement list of military supplies: six-ounce shirting, mosquito netting, balloon cloth, airplane fabrics, parachute harness, jungle cloth, and dozens of other items claimed their place in our production schedule.

### The Spinners Came Through

In the meantime you had lost your supplies of silk and you were looking to our industry for additional supplies of cotton yarn at the one time in a generation when we were least able to meet the demand. Faced with this unprecedented demand, what has our industry been able to do? By 1943 we had increased our production from an average of 80,000,000 pounds annually to an average of approximately 200,000,000 pounds. During this period, however, our percentage of knitting yarns had dropped from 70 per cent to approximately 43 per cent. While this is the case, the figures of our industry would indicate that we produced an average of 86,000,000 pounds of knitting yarn as compared with 56,000,000 pounds for the years 1937 through

The accompanying article, to say the least, is a rarity. In it a cotton spinner states that his industry has not neglected its customers, but has done a good war job and intends to do an even better peace job. Mr. Hall's remarks were presented originally in the form of an address to the National Association of Hosiery Manufacturers.

1939. We increased your poundage even though we have by no means been able to take care in full of the increased demands of your industry. All of this we have done without our industry being allowed to add a single producing spindle while in other textile fields productive capacity has been materially increased.

### The Price Factor

What of the prospective supplies? At the present time we are confronted with limitations of production and certain restrictions of distribution. The limitation to production of which you, as a customer, have perhaps heard most is, without doubt, the question of price. Cotton yarns were among the first items placed under ceiling prices. The schedule under which the combed yarn industry operates is number seven, issued in May of 1941. At that time we were selling 30/1 knitting yarn at 55 cents per pound. While we have, from time to time, secured some relief from our ceiling prices, our basic number of yarn is selling today at five cents under the current price at the time the ceiling was imposed three years ago. This, in spite of very material increases in our cotton and manufacturing costs. We would not criticize any agency that over all has done a good job, but to the extent that the administration of any schedule creates a scarcity of that material, to that extent inflation is being created rather than controlled.

The dual pricing system in the combed yarn schedule, under which a higher price may be secured for certain yarns for military equipment is, of course, something of a handicap to the knitting industry in purchasing the same counts for civilian work.

The primary restriction to production today, however, is shortage of manpower. In the average cotton mill before the war at least 60 per cent of the employees were men. Many jobs were best done by young men who were just ripe for the draft. For only the most essential jobs have deferments been granted. In spite of training programs and the substitution of women for many of the jobs formerly filled by men it is increasingly difficult to keep our plants at anything like maximum production. Today we are faced with the 48-hour work week directive. Just what the results of the application of this order will be on the production of sales yarn, I am unable to say. Practically all of the combed sales yarn mills were built to produce counts

finer than those which are in demand today. For this reason most of the mills are finding their card rooms the bottleneck of their production. It is my feeling that the bottlenecks are now being operated to the extent that manpower will permit, and that no great increase in production will result.

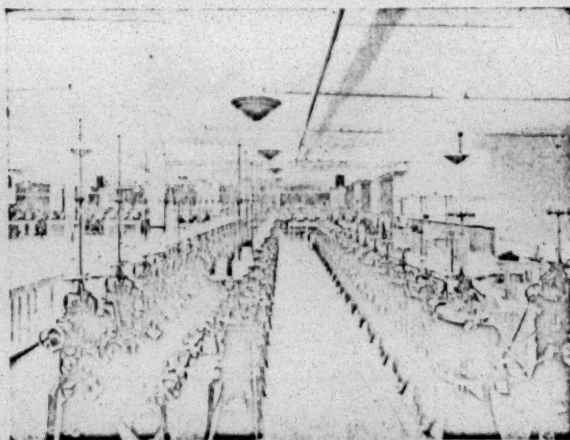
Now as to restrictions of distribution. In the case of certain materials, such as aluminum, steel, copper—and to some extent, synthetic yarns—the War Production Board adopted the system of allocation. The products were frozen at the plant of producers and were allocated into the most essential channels by WPB. This system was feasible with these products because of the relatively small number of producers and the uniform quality of the product made by each. In the case of cotton yarn, however, the problem was entirely different. In the place of a few producers, there were literally hundreds of plants scattered from New England to Texas; each plant producing a different range of counts, using different cottons, catering to a different type of trade, and producing all qualities and grades of yarn.

Under these conditions, to have attempted a system of allocation would have led to untold confusion. A different procedure was therefore adopted by WPB, which is more practical, and which would certainly appear to be fair. We are operating today under two orders from that agency—L-99 and M-317. I shall not attempt to discuss these orders in detail.

Sufficient to say, Order L-99 freezes the production of the spindles within certain brackets as to yarn counts, and end uses which these spindles were producing as of a certain date. Order M-317 designates the percentage of yarn which shall be shipped against government orders, and rated civilian orders in each of these brackets before any yarn can be shipped against unrated contracts. Unfortunately, for the knitting industry, a large percentage of spindles was frozen on yarn for other than knitting purposes. Unfortunately, for your branch of the knitting industry, you have been given very few rated items for which you can extend priorities for cotton yarn. From the standpoint of production, we see little hope in immediate future of increasing our supplies of yarn to your industry, but from the standpoint of distribution, we are hopeful that you can secure ratings on additional civilian items, or that the percentage of required rated business in the knitting brackets may be reduced.

As the cotton spinning industry takes the longer look, we see beyond the present period of scarcity to the day when we must, by sheer merit of our product, as well as by service and price, make our bid for a place in your sun. We have no quarrel with science and no argument with chemistry. We bow to progress; but we shall not bow out. Our industry is only a small link in a great economic chain. Behind us is an agricultural empire extending from Virginia to California; supporting 13,000,000 people—one-tenth the population of America. Our product is based on a fiber of nature, created molecule by molecule and cell by cell by combining the elements of earth with the rays of the sun in an alchemy as yet beyond the mind of man to analyze or comprehend. A fiber possessing qualities which make it the perfect clothing for the human body to the extent that the best equipped army ever to be assembled in the history of the world has adopted it for the tropics and

(Continued on Page 54)



The knitting industry is looked upon as the best customer of cotton spinners, who, according to Mr. Hall, will bow to progress, but will not bow out in the face of the newer fibers.



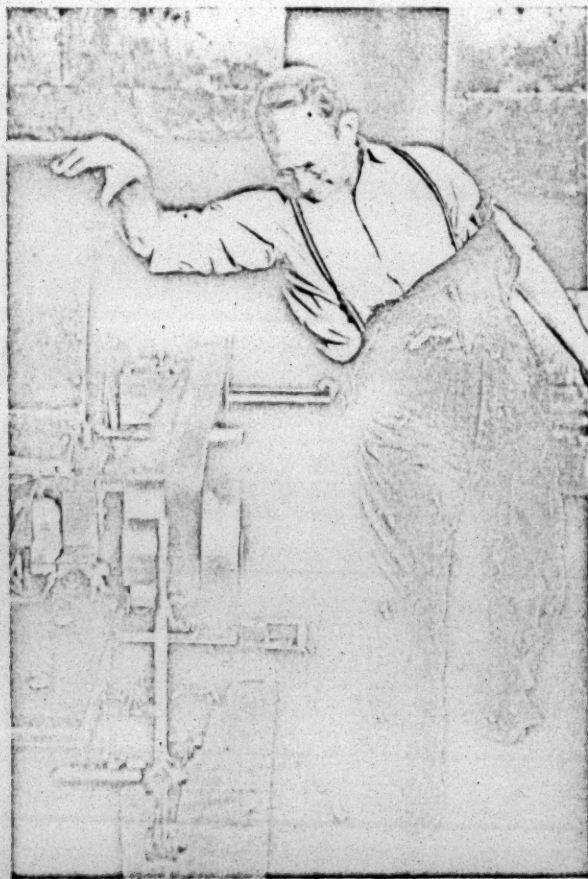
# Accident Prevention Through Housekeeping

By H. E. WILLIAMS, Safety Engineer  
Marshall Field & Co. Manufacturing Division, Spray, N. C.

THE provision of a safe physical working environment is a basic safety principle. The maintenance of this working environment is a job of housekeeping. Here, one may ask "what is housekeeping?" Housekeeping may be defined as a system of maintaining a clean and orderly working condition inside and outside the plant. Such a system must be controlled, and the habits and actions of the personnel must conform and adhere to the planned operating arrangement.

Many accidents can be blamed on poor housekeeping. Splinters, cuts, eye injuries, falls, puncture wounds, striking against wounds, fires, etc., are some of these accidents. Prevention of many of these accidents depends upon the execution of a good housekeeping plan.

In discussing this problem, existing plants and layouts are taken for granted. It must also be conceded that a housekeeping plan can be devised to meet the size plant or group of mills in question.



The proper use of paint can do much to eliminate accidents which result from insufficient contrast between hazardous objects and their surroundings.

Most employees are interested in doing their jobs in a safe, clean manner and will perform their duties along this line if a system of daily routine is set up which includes the following programs: (1) interior cleaning program; (2) interior zoning and arrangement plan; (3) exterior cleaning schedule; (4) a painting plan; and (5) an inspection follow-up system.

## Interior Cleaning Crews

Three specific crews provide the necessary groups to do the interior cleaning. They are plant service sweeping and cleaning, floor scrubbing and window washing. In small plants these crews may be consolidated; however, in large plants or groups of plants separate crews seem to operate more efficiently.

The consolidation of sweepers and cleaners of a mill into a crew responsible to one supervisor will centralize the sweeping and go far toward getting the sweeping job done in a proficient manner. During the present wartime conditions, such an arrangement provides a good training ground for young unskilled employees to get off to a right start in industry. This system has many advantages, but most important is the training of new employees along safety lines. This crew is responsible for the sweeping of the various departments, care of cuspidors, disposal of trash from the mill interior, toilet janitor service, wall and overhead cleaning, etc. These responsibilities should be studied in each plant and the required manpower supplied to meet the scheduled cleaning period found to be advisable. Removal of accident producing waste provides a safer working area. Through such a planned sweeping program many hazards are removed.

Regular sweeping of the floors is not sufficient to keep them clean and safe. In order to remove the dirt, grease, etc., from the open grain of the woods floors, it is necessary to scour them or clean them by some dry process. Scouring is the cheapest and easiest method of doing this work. The finishing of mill floors with a penetrating type floor finish can also be done by such a crew. What accident producing conditions do floor scouring men clean up? The first and largest accident producing condition is oil on the floor. Scrubbing the floors can eliminate many of the falls that result in injuries. Second, elimination of splinters by finishing the floor will prevent accidents produced from this source. Care should be exercised to see that a slick surface is not produced when floor finishing is done. The schedule for scrubbing mill floors will vary according to the type of materials used and the process utilized in the plant. Normally, an average cotton mill floor should be scrubbed not less often than once every eight weeks. Rayon and finish-

(Continued on Page 50)

# Lessons in Fabric Analysis

By THOMAS NELSON, Dean Emeritus of the Textile School,  
North Carolina State College, Raleigh

IN the April 15 issue of TEXTILE BULLETIN the author introduced the subject of fabric analysis, a very necessary supplement to the long series on "Practical Textile Designing." Seventeen items which must be ascertained for the proper reproduction of a fabric were listed, and the first eight (Which are the warp threads and which are the filling threads; Of what material do they consist; Counts, size, number or denier of warp and filling; Sley and pick; Threads or dents per inch in cloth; Threads or dents in pattern; Dents over all; and Reed number) were explained. In this article the remaining nine factors are discussed.

*Threads in pattern*—Threads in pattern are necessary so as to obtain patterns in warp. The threads in pattern can be counted in two different ways. First, when pattern depends on weave. Second, when pattern depends on color. When pattern depends on weave, the threads will be counted until they begin to repeat. When pattern depends on color, the threads will be counted until color begins to repeat. Example: A fabric is composed of a fancy diamond weave and plain weave combined. The threads appear in the fabric as follows: 30 threads of plain, 16 of fancy, 20 plain, 16 fancy, 30 plain, 16 fancy. It will be seen that the fancy stripe in each case is repeated on the same number of threads, but the plain stripe is varied. The pattern will therefore repeat on 30 plain, 16 fancy, 20 plain, 16 fancy, total 282 threads.

*Patterns in warp*—The number of patterns in the warp depends on the number of threads or dents the threads occupy and also the width of fabric. In obtaining the number of patterns the width inside selvage is used, as selvages are additional threads.

Example: A fabric is made  $30\frac{1}{8}$  inches inside selvages, 32 dents per inch in the cloth, the threads are arranged 30 plain, 16 fancy, plain reeded two in a dent; fancy reeded four in a dent. The number of dents pattern occupies will therefore be as follows: 30 of plain, two in a dent, equals 15 dents; 16 fancy, four in a dent, equals four dents; total 19 dents in the pattern. To obtain patterns in warp, multiply dents per inch by width inside selvages and divide by dents in pattern,  $32 \text{ by } 30\frac{1}{8} \text{ divided by } 19 = 50$ , patterns and 14 dents over. There will be an equal amount of plain cloth at both sides of the fabric, namely, 30 threads. Only 14 dents will be left over, but as this is only two threads less the opposite side, two more threads are added to make them equal. Example: A gingham fabric, is made  $28\frac{1}{2}$  inches inside selvages, 36 dents per inch in cloth, the colors being arranged as follows:

White:	10	6	6	10	2	2	10	6	6	10	68
Black:		4	8	4			4	8	4		32
Red:				10	10						20
Green:				36							36
Total											156

Threads are reeded two in a dent. It will be seen by this color plan that the pattern is complete after two of white, ten red, the following ten white, four black being the start of the second pattern. Therefore, the pattern is complete on 108 threads. To obtain patterns in warp, proceed as in previous example: 108 threads, two in a dent, equals 54 dents.  $28\frac{1}{2} \text{ by } 36 \text{ divided by } 54 \text{ equals } 19 \text{ patterns.}$

*Threads in warp*—Threads in warp are obtained by multiplying threads in patterns by patterns in warp and adding selvages. If there are different weaves in fabric which require separate beams each set of threads are indicated as BB-MB-TB, bottom beams, middle beam, and top beam. Take the first example under threads in pattern: the fabric is composed of two weaves, plain and fancy, which will require separate beams in order to obtain the best results.

There are in one pattern 30 threads plain, 16 fancy. Patterns in the warp (50) multiplied by the threads in pattern (30) equals 1,500. Add to this the threads left over (30), and also 48 for selvage. Total plain on BB, 1578. Patterns in warp (50) multiplied by colored threads in pattern (16) equals 800 threads for strip on TB. When there are different colors in the warp the number of threads of each color will have to be found. Take for illustration the second example under patterns in warp. These colors have to be combined into a fabric  $28\frac{1}{2}$  inches wide inside selvages, 72 threads per inch in the cloth. There are 108 threads in pattern, 19 patterns in the warp; total number of threads 108 by 19 equals 2,052 plus 48 for selvage, equals 2,100. To obtain the number of threads of each color, multiply patterns in warp by the number of threads of each color in one pattern. White, 36 threads by 19 patterns equals 684 plus 48 selvage, equals 732. Green, 36 by 19 equals 684. Red, 20 by 19 equals 380. Black, 18 by 19 equals 304, making a total of 2,100 threads.

*Shrinkage in warp and filling*—Shrinkage in warp and filling is the contraction which takes place between the warp and filling threads before being made into cloth and after. This shrinkage was previously explained. Again to illustrate: In one yard of cloth there will be more than one yard of warp yarn; the difference between the cloth length and the yarn length is the amount of contraction.

*Weight of one yard of cloth*—The weight of one yard of cloth is obtained by adding weight of warp to the weight of filling.

*Yards per pound*—Yards per pound are obtained by dividing weight of one yard into 16.

*Design*—What is known as the design or pattern is the figure that is found by the interlacing of threads with each other. In cloth analysis the object is to analyze or pick out the threads so that the pattern can be obtained. In many fabrics it is not necessary to pull out any thread at all when obtaining the pattern unless the pattern is very fancy and



complicated. This, of course, can only be done by those who have had some experience in picking out patterns, but anyone can get to this point very easily by a little patience and practice.

For those unacquainted with picking out we will explain more fully. The pick glass and the pick-out needle are required. The pick glass should be one inch square; the pick-out needle is simply a needle with the eye-end hooked into a small round piece of wood. The needle is used to move the picks or threads from their original position so that the method of intersecting can more readily be seen.

### Methods of Picking Out a Pattern

There are two methods of picking out a pattern. First, take the sample and pull out a few threads from the bottom and left hand side. The object of taking out these few threads and picks is to begin every pick or thread in the same place, for this is one of the principal points in picking out. Lay the sample on something of an opposite color if possible. Put the pick glass over the lower left hand corner and then dislodge the first pick. Begin from the first thread and notice whether the filling passes over or under the warp thread. If the filling passes under the warp thread indicate this on the design paper by filling in one square. If the filling passes under more than one thread, fill in as many squares as there are threads raised together. If the filling passes over the warp threads do not fill in the squares. If the filling passes over more than one thread leave as many empty squares as there are threads passed over. This will be continued until the pattern begins to repeat.

Sometimes it is easier to pick out the warp threads. The process is exactly the same; that is, when the warp thread raises the square is filled in, and when the warp is lowered an empty square is left. The only difference is that when picking out the warp, the vertical squares on the design paper must be filled, while for filling, the horizontal squares are filled in. Second, this is used more in picking out patterns in woolens and worsted, but can also be used on coarse cotton. Take the sample and pull out a few threads from the left hand side, then take the sample between the thumb and finger of the left hand, dislodge the thread with a pick-out needle and indicate on design paper how the threads are raised and depressed as explained in first method.

A small point which proves very helpful may be mentioned here. Suppose the filling is being picked—do not try to remember how the filling interweaves with the warp for too many threads at a time, as one is apt to forget when filling in squares on design paper. Also, always leave off when a warp thread is raised. The reason for this is that the last thread picked out will be indicated on the design paper. Whereas, if the last warp threads are not raised, they are not indicated on the paper, and so will have to be remembered when filling the squares for the remainder of the pick. This makes more work and there is more liability of getting the picks wrong.

*Drawing-in draft and Chain plan*—The method of obtaining the drawing-in draft (D.I.D.) and chain plan (C.P.) from a design has previously been explained in the designing class. In practical work the painting of the design is often omitted and the D.I.D. and C.P. made direct from the sample. The only requisite is to notice the weaves

used in the fabric and then make the chain plan from the number of harnesses required. Knowing the harness shafts on which each weave is made the D.I.D. can then very readily be made from the fabric.

### New and Revised Color Cards Issued

The third edition, revised for 1944, of the U. S. Army Standard Color Card for the official standardized shades of olive drab, khaki and drab sewing threads, which incorporates the new standard instituted by the Quartermaster General of the U. S. Army for the thread color, U. S. Army Olive Drab Dark Shade, has just been issued by the Textile Color Card Association as authorized by the Quartermaster General. In this revised card, it was explained by Margaret Hayden Rorke, managing director of the association, the new color is designated as T-1 and is darker than the former Shade T, which it now replaces. It is the color used for sewing items of officers' clothing in olive drab (Shade No. 51).

The five remaining thread colors, Shade P (khaki), Shade Q (olive drab), Shade R (olive drab), Shade S-1 (olive drab) and Shade U (drb) remain the same in the new edition, except that new cable numbers, 66013 to 66018 inclusive are given to all shades. As previously noted when the first two editions were brought out by the association, this card shows the six authorized shades in thread tassels and lists the various items of U. S. Army clothing and equipage for which these sewing threads are used. The card has wide distribution among the quartermaster depots throughout the country, as well as thread manufacturers and other firms making clothing or equipage for the U. S. Army.

Copper and nasturtium shades, olive and mossy greens, cocoa and chocolate tones, plum, strawberry and raspberry versions and greenish sea blues are prominent among the basic color types presented in the 1944 fall woolen and rayon cards, which the Textile Color Card Association has just released to the trade. Gold, tangerine, lime, lilac, aqua and strong pinks are stressed among the medium tonalities.

All directors of Raybestos-Manhattan, Inc., Passaic, N. J., were re-elected recently at a unique meeting of stockholders, during which there was a luncheon and periods of discussion and questioning. An impressive feature of the meeting was a display of war and post-war products of each of the company's components, one of which is the Manhattan Rubber Mfg. Division.

In summing up his report to the stockholders, Sumner Simpson, president, listed the following points in a program for the coming year: continue to produce essential war materials in increasing quantities until the war is won; secure prompt settlement of contracts as they are terminated, and watch working capital; watch rubber and asbestos surplus materials, assist in an orderly disposition of them and also give necessary assistance to other firms in this activity; review and improve sales distribution methods, develop new products and resume manufacture of peacetime products as soon as conditions permit; improve machinery and equipment in all manufacturing divisions; review and reduce operational costs; and provide employment for as many men and women as possible, and continue the company's human relations program.

# MILL NEWS

COLUMBUS, GA.—Bibb Mfg. Co. has changed the name of its Meritas Mills at Columbus to Anderson Mills. Bibb directors took action after the Columbus Chamber of Commerce passed a resolution suggesting the change to honor W. D. Anderson, president of the company.

WINNSBORO, S. C.—The part that products made by the Winnsboro Mills of United States Rubber Co. are playing on the fighting fronts is depicted in a seven-page article in a recent issue of *Esso Oilways*, a publication of Esso Marketers. A number of items manufactured at the plant from cotton, rayon and nylon are described. Particular mention is made of "Ustex," a chemically treated yarn used in paratroopers' harnesses. Besides its use in military tires, cord from Winnsboro Mills is also woven into fabrics which play an important role in the construction of self-sealing fuel cells for airplanes.

## THE MILL

Deep within I feel the "hum,"  
It keeps time with my beating heart.  
I've heard it day and night for years,  
'Tis of my life a very part.

Sometimes the sound is merry,  
Sometimes it's very sad.  
The song that comes from human lips,  
Is not always glad.

This "hum" really is music,  
Played on various strings;  
Carding, spinning, weaving,  
And many other things.

The tune is rich and vibrant,  
Sometimes like dripping rain,  
Sometimes like a cat's purring,  
At times like a railroad train.

Whatever the tune, whatever the sound,  
'Tis music in my ears;  
A yearning song, a thrilling song,  
That I've loved through the years.

*Mildred S. Bryan*

Note: The author of this poem is the wife of M. M. Bryan, president and treasurer of Jefferson (Ga.) Mills.

CEDARTOWN, GA.—Cedartown Textiles, Inc., was the first contributor to a fund recently instituted for the purpose of erecting the new Polk General Hospital at Cedartown. A \$15,000 donation was arranged by W. L. Walters, treasurer of Uxbridge Woolen Mills, operator of Cedartown Textiles. The hospital's board of directors thanked him personally when he was a recent visitor.

SPARTANBURG, S. C.—Partial operations have gotten under way in the new rayon fabric plant of Raycord, Inc. When equipment worth some \$500,000 is finally installed in the plant and operations are on a full-time basis, approximately 120 persons will be employed.

PRATTVILLE, ALA.—Prattville Cotton Mills, Inc., was among 12 firms recently charged in New York with having violated Office of Price Administration ceilings in the sale of finished piece goods and cotton fabrics. The informations filed contain 374 counts covering specific sales at above ceiling prices, and charges of failure to keep complete and accurate records of the transactions.

WOODRUFF, S. C.—Reeves fabrics, manufactured by Mills Mill plants at Woodruff and Greenville, S. C., and finished by Fairforest Finishing Co. at Spartanburg, S. C., are being featured in a current advertising and promotional program sponsored by Reeves Bros., Inc. The development and uses of the various fabrics are described briefly.

CORNELIUS, N. C.—The property of Cornelius Cotton Mills has been sold to Frank Ix & Sons, Inc., rayon fabric manufacturing firm, with headquarters at North Bergen, N. J. The sale was announced by R. Horace Johnston of Charlotte, president of Cornelius Cotton Mills. The plant, which employs 200 persons, is equipped with 9,210 spindles which are currently running on combination rayon-cotton yarns. The sale price of \$190,000 includes mill buildings, equipment and village houses, but not stock on hand. No plans for future operation of the plant have been announced by the Ix concern other than that F. C. Stough, secretary and treasurer under Mr. Johnston, will remain as local manager for the new owners.

### R. D. Cole Mfg. Co. Has Anniversary

The 90th anniversary of R. D. Cole Mfg. Co., Newnan, Ga., was celebrated May 7 by company officials and employees. The firm has been manufacturing tanks, vats, kiers and boilers for textile mills and other industrial plants since 1854. For special war work the company received the "M" award of the United States Maritime Commission, and later was permitted to add a star to the pennant signifying continued excellence of production. E. G. Cole is president, Bryan Blackburn treasurer, and associated with them in the management are Edward Guy Cole, Jr., and D. C. Blackburn.

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# PERSONAL NEWS

John K. Whitaker, president of Hesslein & Co., Inc., has been elected a director of the Commerce and Industry Association of New York, Inc. He is also a director of the Cotton-Textile Institute, Inc., and the Association of Cotton Textile Merchants of New York.



**Dr. J. E. Mills**  
Dr. James Edward Mills, chief chemist for Sonoco Products Co. at Hartsville, S. C., received the Herty Medal in an appropriate ceremony May 6 at Milledgeville, Ga. The medal is awarded annually for outstanding work in chemistry, honoring the late Dr. Charles Herty, under whom Dr. Mills was a student. Since 1934, when he resigned as professor of chemistry at the University of South Carolina, Dr. Mills has conducted the Sonoco research laboratory and development department. As an Army lieutenant-colonel in World War I, he served as chief of the chemical division at Edgewood Arsenal, Md.

J. C. Ewing, manager of the Wateree Plant of the Kendall Co., is now president of the Camden (S. C.) Rotary Club.

Walter Pratt of Charlotte has been elected president of Sykes, Inc., the American subsidiary of Joseph Sykes Bros., Huddersfield, England. Mr. Pratt has for many years been Southern representative for Sykes, Inc., and since its formation has been an official of the firm.

S. S. Holt, superintendent of Travora Mfg. Co. at Graham, N. C., has been sworn in as a member of the Graham County Selective Service Board.

Henry Thomas, superintendent of Stonecutter Mills Co. at Spindale, N. C., was elected president of the Spindale Rotary Club at a recent organization meeting. David Mathews, assistant secretary-treasurer of Spindale Mills, Inc., was named club secretary-treasurer.



**D. D. Ault**  
D. D. Ault has been put in charge of the new branch office of the Bristol Co., manufacturer of automatic control and recording instruments, at Houston, Tex. Mr. Ault, who has been resident sales engineer in Houston for a number of years, will manage the area including Texas and Louisiana. He has been associated with the company since 1926, and has been located at Houston since 1936.

R. A. Neal has been named vice-president and sales manager of Westinghouse Electric and Mfg. Co.

William Yandell Elliott has been appointed vice-chairman for the Office of Civilian Requirements, War Production Board, succeeding Arthur D. Whiteside. Mr. Elliott was on the faculty of Harvard University until 1941, at which time he joined the staff of the Office of Production Management, working with various other war agencies until his present appointment.

John L. Graves has been promoted to manager of the Atlanta office of Saco-Lowell Shops, with territory including Georgia, Alabama, Mississippi and Tennessee. For the past two years he has been stationed at the company's plant at Biddeford, Me. His assistants in the new position will be M. A. Comer, salesman, and H. M. Walsh, service representative. Walter Gayle is Southern manager for Saco-Lowell at Charlotte.

F. H. Herndon has been promoted to manager of the coal stoker division of the Link-Belt Co., Chicago, Ill. K. C. Ellsworth,



**F. H. Herndon      K. C. Ellsworth**

worth, previously Eastern stoker division manager at New York, has been appointed sales manager of the division, with headquarters at Chicago. Both have been associated with the company since 1934.

W. M. Kirby, formerly of Abbeville (S. C.) Cotton Mills, is now overseer of spinning for Woodside Cotton Mills Co., Simpsonville, S. C.

Samuel Y. Austin of Avondale Mills at Sylacauga, Ala., and Cary C. Boshamer of Clover (S. C.) Spinning Mills, Inc., have been appointed members of the government spending committee of the National Association of Manufacturers. The committee will attempt to determine spending policies which will be in the best interests of taxpayers, meeting with Federal officials as collaborators rather than critics.

D. D. Quillian, who has been superintendent of Aldora Mills at Barnesville, Ga., has been appointed superintendent of the rayon tire cord plant now under construction near Clemson, S. C. Mr. Quillian has been in the textile field some 20 years. The plant is expected to be operating by July.

Robert J. Mcbane, who prior to entering the Naval Reserve was connected with Burlington Mills Corp. at Greensboro, N. C., has been promoted to the rank of lieutenant-commander. Commander Mcbane is stationed at Charleston, S. C.

Paul H. Camp has joined the staff of the Charlotte Chemical Laboratories, Inc., to head a department which will handle laboratory equipment exclusively. Mr. Camp, with a great deal of experience and knowledge of scientific equipment, is expected to contribute greatly to the promotion of laboratories in general in the Carolinas.



**Paul H. Camp**

Frederick Pritchard, until recently chief dyer for Brown Mfg. Co. of Concord, N. C., has also joined the company to devote himself to a new research project undertaken recently. Prior to his work at Concord Mr. Pritchard was associated with hosiery mills in Winston-Salem and High Point, N. C. It is understood that his new work has nothing to do with textiles.

E. B. Mathewson, prominent in the textile industry for many years, has been appointed operations manager of North Star Woolen Mill Co. and Lima Woolen Mills Co. He had previously been associated with the Kendall Co. and American Thread Co.

Leroy S. Converse of the American Viscose Corp. standards department has been appointed secretary of the tire cord and fabric section, Committee D-13 on Textile Materials of the American Society for Testing Materials. This appointment also makes Mr. Converse a member of the general advisory group of Committee D-13.

George N. Miller, who for nearly 30 years has been identified with Riverside & Dan River Cotton Mills, Inc., has resigned as head of the engineering department. Company officials stated that his resignation had been accepted with regret.

Harry R. Winkle has been elevated from the post of comptroller and treasurer of Owens-Corning Fiberglas Corp., Toledo, Ohio, to that of vice-president. This action was taken at a recent board of directors meeting in recognition of "the increased importance of the financial phase of the business." Mr. Winkle, who is also a company director, will continue to serve as comptroller and treasurer.



**Harry R. Winkle**

(Continued on Page 45)

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## Guardians of the South

The negro question is, at least, 90 per cent Northern and 90 per cent white.

Very few Southern negroes have any desire to vote in elections and almost none of them have any interest whatever in trying to establish social equality with white people.

Almost all of the hullabaloo being raised about social equality and votes for negroes is the product of small groups of white people in the North and a few Northern negroes who were probably approached by Northern whites and induced to become active. Some of them are, no doubt, paid for their activities.

Ever since the Civil War, in fact, even prior to that struggle, there have been small groups of Northern people who seem to think that their mission in life is to regulate the affairs of the people of the South, and when our conduct is not in accord with their preconceived ideas, seek means through which to force them upon us.

Most of the people in the Northern states are perfectly willing for the citizens of the South to handle their own problems, but the self-appointed "Guardians of the South" are constantly raving and ranting about our conduct while entirely ignoring incidents in their own territory, such as the following:

New York, May 11.—Police reported that 25 white and 25 negro girls fought for almost half an hour in the cafeteria of Brooklyn Girls High School today. Then they fought with chairs, dishes, fists and fingernails as weapons.

About a year ago a group of young negroes in the Harlem district of New York staged a riot during which they broke a large number of store windows and stole very large amounts of the goods of Harlem merchants.

The "Guardians of the South" pay no attention to such incidents in their own territory but are quick to criticize every incident noted in the South.

Our critics do have the support and encouragement of a few people such as Howard W. Odum of the University of North Carolina and Will W. Alexander of Atlanta, both of whom were affiliated with communistic activities during the days when Stalin was attempting to overthrow our government and establish communism in its place.

Every section has men like Odum and Alexander who appear to have peculiar complexes and spend their lives criticizing the habits and activities of the majority of the citizens of their community or section. They seldom accomplish anything but seem to get great pleasure out of criticizing their neighbors.

Stalin has now declared that Russia will not in the future be a party to plans for the overthrow of the governments of other countries and we believe that he is sincere in taking that position. However, some years ago he said in addressing a group of American communists who were visiting in Russia:

I think that the moment is not far off when a revolutionary crisis will be unleashed in America, and when that revolutionary crisis comes in the United States, it will mark the end of world capitalism. The Communist Party of the United States must be armed to meet this historical moment and to head the forthcoming class war.

So inspired by that statement were certain American communists and near-communists that shortly thereafter, in the spring of 1935, they conceived the idea of a summer school at Moscow University to which young men and girls of the United States could be sent to acquire enthusiasm for and a better understanding of communism.

In order to influence as large a number as possible a circular was prepared and widely distributed. From the group of sponsors as shown upon the front cover of the circular we have extracted the following:

WILLIAM ALLAN NIELSEN, President, Smith College  
HOWARD W. ODUM, Professor of Sociology and Director,  
School of Public Welfare, University of North Carolina  
WILLIAM F. RUSSELL, Dean, Teachers College, Columbia  
University.  
H. W. TYLER, General Secretary, American Association of  
University Professors.

Under the influence of the sponsors a substantial number of young people set sail in June, 1935, for Russia on a ship which had been provided but when they reached there, they found that no provision had been made for an American section of the summer school at Moscow University and they not only had wasted their travel money but many had great difficulty in obtaining passage back home.

Apparently the entire plan, for educating a group of American boys and girls for a part in the revolution which Stalin had predicted, was conceived in the United States but the sponsors had failed to obtain the approval and co-operation of Stalin.

Howard W. Odum, like the editor of this publication, is old enough to know how the negro was used



by ward heelers when he did vote freely in the South, and knows also the many troubles politics brought upon him.

He knows that since the negro ceased to be active in politics, his lot has been much better and he has been much happier.

Howard W. Odum and some of his friends recently organized the Southern Regional Council with himself as president. The vice-presidents are P/B. Young, negro, editor of the *Norfolk Journal and Guide* and chairman of the trustees of Howard University; Homer P. Rainey, president of the University of Texas; and Carter Wesley, negro, editor and publisher of the *Houston Informer*.

Meeting in Atlanta, they urged negroes to register and vote and since then there has been an organized effort to get Georgia negroes to register.

Few negroes have any desire to vote and but for the urging of a Northern group of white men and women, plus a few Odums, would continue to develop in their own way and would avoid the friction and troubles which are certain to come to him.

Far more important to the negroes than voting is to retain the good will and co-operation of the white people of the South.

There will never be social equality for negroes until the day comes that white men marry negro women.

There are a few isolated cases of white women marrying negro men but we have never heard of a white man marrying a negro woman. Very seldom does the marriage of a white woman and a negro man last more than a few months.

Self-respecting negroes in the South have no desire for social equality with whites.

They prefer to associate with their own people, to have their own churches and their own schools and their own moving picture houses.

In years past, especially when the negro was voting and being the tool of unscrupulous ward heelers, they did not always receive justice in the courts, but today they have little reason to complain.

The self-appointed "Guardians of the South" and such men as Howard Odum and Will Alexander may be expected to continue to criticize and to continue to try to stir up trouble, but 25 years from now the position of the negro in the South will be almost exactly as it is today.

John H. Kerr, speaker of the North Carolina House of Representatives in the 1943 Legislature, said in making the keynote speech of the recent North Carolina Democratic Convention:

North Carolina wants no socialistic government; it does not propose to become a test tube for the trying out of communistic schemes, either in the educational, economic or political life of the state.

His statement met the overwhelming approval of the people of North Carolina and of every state in the South.

## Strike Causes Reinstatement Loss

The National Labor Relations Board has ruled that employees who go out on strike to induce their employer to grant them a wage increase which has not been Federally-approved lose their right of reinstatement.

The decision involved nine employees of the American News Co., Paterson, N. J., whom the board said struck in June, 1943, after the company declined to comply with a wage increase demand which had not been approved.

After the strike, the board said, the company informed the workers that they had been dismissed. Soon thereafter the employees abandoned the strike and asked to be put back to work on the old terms.

The company made no answer to the request and the board said the union charged the firm with unfair labor practices.

The National Labor Relations Board held that by acting in concert, the union members forfeited their rights under the labor relations act by engaging in a strike aimed at compelling an employer to do an illegal act.

## A Fine Gesture

J. W. Schwab, president of the United Merchants and Manufacturers Management Corp. of New York, has sent a check for \$12,000 to the N. C. Textile Foundation, Inc., and identical amounts to the J. E. Sistine Foundation of South Carolina and the Educational Foundation of Georgia.

They have no textile mills in North Carolina but operate the Bath Mills, Bath, S. C., Clearwater Mfg. Co. and Seminole Mills at Clearwater, S. C., United Rayon Mills, Langley, S. C., and United Rayon Mills at Elberton, Ga.

In their letter to W. H. Ruffin of Durham, N. C., treasurer of the N. C. Textile Foundation, Inc., they say:

We have been very much interested in the development of the various textile foundations and wish to play our part in their support.

Their willingness to play their part even in a state in which they have no mills should receive the commendation of the entire textile industry.

Recent contributions by North Carolina mills have been: Spindale Mills \$2,312, Carolina Mills \$1,000, Virginia Mfg. Co. \$600, J. A. Cline & Sons \$500 and Hickory Knitting Mills \$250.

The contributions by the Spindale Mills and the Virginia Mfg. Co. were second contributions made for the purpose of bringing their total contributions to the requested 10 cents per spindle.

The North Carolina Textile Foundation, Inc., has received to date \$515,300 and its promoters are confident that the goal of \$700,000 will be reached before the end of 1944.

# Dyes and Chemicals in Post-War Planning

By HENRY F. HERMANN, General Dyestuff Corp.

A FEW MONTHS ago many false rumors of an early peace were circulated. Today, we know that the end of the war in Europe is remote. There is a lesson to be learned from this experience, namely, if peace had come this spring we would have been as poorly prepared for it as we were for Pearl Harbor. Confident in ultimate victory our industries should avail themselves of the present opportunity of planning for the post-war period.

The benefits to the industry of the war have been the modernization of a considerable amount of machinery, the enforced accomplishment of high pressure quantity production, the evolution of new materials through the co-operation of all interested parties. The exigencies of war have taught the value of research and co-operation, the effectiveness of which should not be overlooked in post-war planning.

We are confronted with a tremendous backlog of consumer demands because of exhausted inventories and the fact that war requirements do not permit the manufacture of non-essential civilian goods. The opportunity is a golden one for our industries, but it will have to be handled sensibly or we face an orgy of over-production and another needlessly costly period of readjustment.

The textile industry's surplus capacity for the production of herringbone twill, Army drill, Army sateens, parachute cloth, duck, netting and webbing, which the war has required in hundreds of millions of yards, may find some export outlets so that the period of conversion to peace requirements will not be a sudden shock. Eventually, however, this production capacity will have to be diverted into civilian goods and will call for technical skill and proper market appraisal to provide new lines which will fit into the post-war economy.

The dyestuff and chemical industries are faced with a more serious problem. Many dyes are being manufactured at a rate hundreds of times greater than the civilian market has use for. Export outlets will not prove adequate to absorb these surpluses because foreign buyers, the same as our own civilian populace and returning servicemen, will not want to wear the khakis and olive drabs as reminders of their war experiences.

The termination clauses contained in present government contracts do not provide adequate protection to the dyestuff industry against cancellations or curtailments. Textile mills as direct or sub-contractors have good cases to present for

adjustment by the government but the dye and chemical suppliers in their positions of sub-sub and sub-sub-sub contractors may never be reached.

Post-war re-equipment of textile plants will benefit from developments in the metallurgical industry. Plentiful and cheap aluminum, magnesium, steel and copper alloys will permit their use for many purposes for which their lightness, strength and durability adapt them, since the barrier of prohibitive costs has been removed. Similarly, huge wartime production of a number of important chemicals will assist the dyestuff industry, such as the unparalleled supply of alcohols, free and fixed chlorine and bromine and an extensive range of solvents. The synthetic production of toluol may have very far-reaching effects because it is expected to be very much cheaper than before the war and it will compete with benzol on an entirely different footing. The synthetic rubber program will concern itself principally with automotive requirements for some time to come but, eventually, we may expect contributions from this field which will adapt themselves to textile finishes of an entirely new character.

## Research in Dyestuffs

The dyestuff industry is continually engaged in research directed toward the perfection of the existing line of dyes, as well as the quest for new dyestuffs to fill important niches in the palette. Insofar as this involves pure research into the unknown the operations are costly and the results unpredictable. However, a more practical problem confronts the industry, namely, the one of duplicating in this country a fairly extensive line of dyes which were formerly imported from abroad and which the American industry is determined to transplant permanently in this country. Research work on new dyeing techniques is well under way. As new fabrics are developed or new processing machinery becomes available consultation with the dye companies will assure the most modern solution to each problem.

The American service men are acknowledged to have the best clothing and other equipment of any soldiers in the whole world. Our men from every walk of life and every hamlet of this great country will return to their homes with the knowledge that durable colors and finishes are obtainable and they will insist on getting them for their own, as well as their families' needs.

Our designers, understanding the post-war psychology, will select brighter and stronger colors than were ever fea-

Abstract of paper presented at meeting of New York section of the American Association of Textile Chemists and Colorists April 21, 1944.



tured before. The textile industry has the assurance that this is an entirely safe procedure since fast colors are available in practically all the brighter shades so that stringent specifications for quality can be met. Many mills which formerly handled only commercial colors acquired the technique of dyeing and printing fast colors through war production. Therefore, the supply of dyers and finishers of color-fast fabrics will be very much larger and it will be easier for converters and manufacturers to get this type of service.

It is quite likely that the informative labeling of textiles will be enforced as soon as the industry is deemed capable of taking this step. This will prove to be a great impetus for the production of better quality goods because the assurance of getting his money's worth is all that the average

buyer requires in order to pay the extra price willingly. This does not mean the abandonment of lower quality goods to sell at correspondingly lower prices because there will always be a tremendous market for cheap merchandise.

Another contribution to the upward trend of textile qualities will come from the personnel, trained by the Quartermaster Corps and other procurement agencies, who have acquired a liberal education in textiles from a quality specification standpoint. These people will find employment in the industry and will tackle their new jobs with the conviction from their war experience that quality is to be had if it is demanded in unmistakable terms, and they will know the names of many establishments to which they can turn if the old line houses do not wish to co-operate with them.

The tremendous developments in the field of synthetic fibers will be exploited by manufacturers in the endeavor to develop new fabrics in order to acquire new markets or to improve existing lines. Practically every one of the known synthetic fiber types is available in modified and improved yarns, adapting them to specialized uses which were heretofore impossible. The majority of these new fibers and yarns are now reserved for war work and it is hoped that their transition to post-war uses will be gradually permitted so that weavers and knitters will be able to experiment with them and determine their best uses in their respective fields.

New and improved resins capable of better and entirely new finishes will become available for civilian use in the same manner. Anti-crease and permanent finishes with which we are already acquainted are only the beginning of the uses to which these materials will be put. Shrink-proofing will be almost universally demanded.

The war has taught us the importance of research not isolated in a few institutions but shared by all industries in co-operation with the government for the successful conduct of the war. Let us not drop this important tool on the false assumption that the new peace economy will be a millennium of ease, comfort and profits. Peace, happiness and prosperity will be the fruits of the strong, the wise and, above all, the well prepared.

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## Changes Made in Methods of Fixing Prices for New Products

Several changes in methods of determining maximum prices for new kinds of merchandise, such as new fabrics, under the General Maximum Price Regulation have been announced by the Office of Price Administration. The main effect of this action, which becomes effective June 1, is to set up a more precise set of standards for selecting "comparable commodities" that can be used as the basis for computing mark-ups on items that are not similar to any handled by the seller or his competitor in March, 1942. The changes apply to retailers, wholesalers, and manufacturers.

The amendment does not affect the basic pricing method used under the General Maximum Price Regulation (Section 2), by means of which the seller takes as his ceiling price the highest price at which he or his competitor delivered or offered the same or a similar item in March, 1942. What is affected by the amendment is the second pricing method, which a seller uses when neither he nor his competitor sold or offered to sell the same or a similar commodity. Under this method, he refers to a "comparable" commodity for the purpose of securing a mark-up. Using his cost for the commodity he is pricing, applying the mark-up taken from the "comparable" commodity, he arrives at a ceiling price. By making the standards of comparability more exact and relating them more closely to current operations, rather than to operations during the March, 1942, base period, OPA said that it expects to make the pricing of new merchandise easier for the seller and more readily enforceable by the agency.

For manufacturers, the "most comparable commodity" must meet these tests: (1) it must belong to the narrowest trade category that also includes the commodity being priced; (2) it must have a current unit direct cost varying from that of the commodity being priced by not more than 25 per cent of the latter cost; and (3) it must be currently produced by the seller or, if he is not currently producing a comparable commodity, it must have been produced by him within the 12 months preceding his use of this pricing method.

Where more than one commodity meets all of the above tests, the one selected must be the one with a current direct cost nearest to the current direct cost of the new commodity. Manufacturers are still required to report to the nearest OPA district office their maximum prices, computed according to the new provisions, in those cases where they produce or sell a "comparable commodity." The price administrator reserves jurisdiction over manufacturers' prices, which must be established upon application. He may also issue orders fixing ceiling prices for sale or resale of any commodity under the regulation, at any level either locally or on a national basis.

Orders previously issued under the General Maximum Price Regulation remain in force. It is not necessary for sellers to apply for new maximum prices if they have already priced in accordance with the regulation or have had their prices established by special order. Forms used for reporting prices computed by use of the automatic formula have been revised to bring them into agreement with the new criteria and with other changes in the regulation. These forms may be obtained from OPA field offices.



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**EXSIZE** is a concentration of natural enzymes—contains no harsh alkalis or chemicals—its gentle, thorough action cannot weaken cloth.

2. **MUST** work evenly and rapidly.

**EXSIZE** desizes starch and starch derivative sized fibres with speed and efficiency, leaving materials soft, elastic and supple.

3. **MUST** be simple to prepare and use.

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## The "Grex" Universal Yarn Numbering System

(Continued from Page 22)

be changed by the use of specially prepared yarn conversion tables. These are easily and cheaply made. Testing instruments could be changed on a new or replacement basis if desired, and old and new units could be used during a transition period to insure a minimum of misunderstanding.

It is believed that the temporary difficulties would be a small price to pay for the advantages which would be secured and the troubles that would be eliminated in the indefinite future. The effort that will have to be made, however, does demand that a careful review of existing and proposed systems be made, to be sure that the best possible system is being adopted.

In considering this proposal, the general adoption of an existing direct unit such as the spyndle or denier has been considered. However, the spyndle unit, equivalent to

pounds per 14,400 yards, cannot be readily decimalized, and the numbers of normal textile yarn are decimal fractions, which is undesirable. The denier unit has most of the advantages of the "Grex"; it is, however, based on 9,000 meters and multiples or submultiplies are not quite as easy to handle. (For instance, 90 cm. or 1.8 meter lengths and reels of 1.125 m. are in common use.) It is also desirable, of course, that in view of the trouble involved in effecting a changeover, nothing short of the best possible system be adopted.

From the foregoing, it will be seen that the "Grex" has much to recommend it. It is direct, it is mathematically simple, it is euphonious, it is based on principles familiar to men in every branch of the textile industry. The advent of new synthetic yarns makes it very appropriate that a universal numbering system be adopted as soon as possible.

## Soda Process Removes Excess Caustic

A process using bicarbonate of soda for removing excess caustic from goods in various textile finishing operations has been developed by the Mathieson Alkali Works. In this process, the caustic and the bicarbonate react to form the normal carbonate, which is easily washed out of the goods.

Heretofore the practice has been first to neutralize the excess caustic with a "sour," usually sulphuric acid. Then the acid was in turn neutralized with soda ash, or normal sodium carbonate. It is claimed that the new process, by eliminating the use of acid, makes unnecessary the use of acid-resistant equipment, minimizes hazards to workers and reduces the number of steps in some processing operations. The quality of the goods is said to be improved by the use of hot washes, which are entirely safe in the bicarbonate process. The applications in which the process has already been found successful include removal of caustic after continuous jig scouring or mercerizing of open-width heavy fabrics, after warp yarn mercerizing, after kiering and after caustic steaming.



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## PERSONALS

(Continued from Page 36)

William D. Anderson, president of Bibb Mfg. Co., will be the commencement speaker at graduation exercises to be held this month by Wesleyan College. Colonel Anderson is chairman of the college's board of trustees.

Henry A. Cox, formerly head of the production and planning department of Burlington Mills Corp., Greensboro, N. C., has joined the War Manpower Commission staff as a textile specialist in North Carolina.

J. T. Henry, vice-president and general manager of Tolar, Hart & Holt Mills, Inc., at Fayetteville, N. C., will enter the service in the near future. While Mr. Henry is on leave the plant will be managed by Dan R. LaFar, Jr., president, and Harry T. Allen, vice-president.

A Liberty ship named for James W. Cannon (182-1921), founder of Cannon Mills Co., will christened in the near future. Company officials from Kannapolis, N. C., and New York will attend the ceremonies.

R. P. Alexander, office manager at S. Slater & Sons, Inc., at Slater, S. C., has been elected president of the newly-organized chapter of the National Office Management Association at Greenville, S. C. J. L. Whatley of Dunean Mills was elected vice-president, A. D. Robinson of Union Bleachery, treasurer, S. G. Bagwell of the Brandon Corp., secretary, and John L. Smith of Brandon, a director.

E. F. Powell, formerly superintendent of the Callaway Mills Valway Plant at La-Grange, Ga., has joined the development department of Marshall Field & Co.

Dr. Stuart D. Douglas, head of plastics research for Carbide & Carbon Chemicals Corp., received the Hyatt Medal for outstanding achievement in his field at the recent annual conference of the Society of the Plastics Industry held at Chicago. The award, which is presented yearly by Hercules Powder Co., was made to Dr. Douglas for his work in polymerization of vinyl resins, used widely in coating fabrics.

Marlin G. Geiger, presently a vice-president and director of Westvaco Chlorine Products Corp., and resident manager of that company's South Charleston, W. Va., plant, has been elected a vice-president and director of United Chemicals, Inc. Mr. Geiger will continue as resident manager of the Westvaco South Charleston plant.

Charles Hagelgans is now representing Jacques Wolf & Co. in the Philadelphia area, where he will act as technician and demonstrator of the company's many chemical specialties.

William P. Headden has been appointed assistant manager of the sales engineering department of the Standard Oil Co. of New Jersey. Since early in 1943 he has been supervisor of the fuels and lubricants section of the division.



### GENERAL COAL GOES TO WAR—

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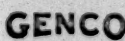
Genuine Third Vein Pocahontas from McDowell County, W. Va., on the Norfolk & Western Railroad.



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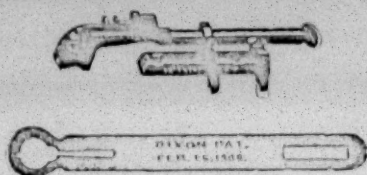
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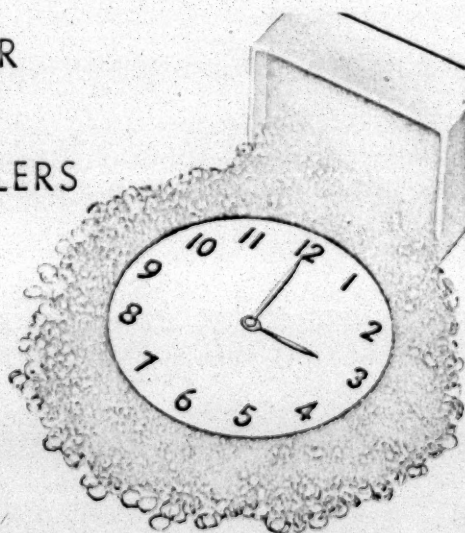
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## Ring Travelers

## OBITUARY

### J. A. SHUMATE

John A. Shumate, 52, vice-president and superintendent of Leaksville Woolen Mills at Charlotte and Spray, N. C., died recently at Charlotte after a brief illness. He was a native of Virginia, and had been associated with the firm for a number of years. Survivors include his mother, wife, three daughters, one son and four brothers.

### C. V. SJOSTROM

Carl Verner Sjostrom, 51, assistant superintendent and designer for Dunn Woolen Co. at Martinsburg, W. Va., died recently from a heart attack. He was a native of Providence, R. I., and at one time held a supervisory position at Peerless Woolen Co., Rossville, Ga. His widow survives.

### J. F. SHINN

James Franklin Shinn, 76, superintendent of Norwood (N. C.) Mfg. Co. prior to his retirement several years ago, died recently at his home in Concord, N. C. He is survived by his wife, three sons, a daughter, five grandchildren and seven sisters.

### C. A. WYMAN

Charles A. Wyman, 62, superintendent of the Virginia State Penitentiary textile plant at Richmond, Va., died recently after a brief illness. He had been in that position for the past 11 years. Besides his widow, he leaves four stepdaughters and a brother.

### C. B. SUTTLE, SR.

Claude Baxter Suttle, Sr., 83, well known textile operating executive prior to retiring, died recently at his home in Charlotte. For some 25 years he was superintendent of the old Elizabeth Mills at Charlotte. Among survivors are two daughters and four sons.

### T. F. McMAHON

Thomas F. McMahon, one of the organizers of the United Textile Workers of America, died last month at Providence, R. I. For a number of years he was active in the South as an organizer. In 1937 he was named labor director by the Rhode Island Legislature, and held that position through 1939.

## Glass-Asbestos Fabric Being Used

A new textile made of a combination of glass and asbestos is being used as a protective boot in war planes, according to an announcement by Owens-Corning Fiberglass Corp. The fabric is used for gun boots, tail wheel boots and as protection for retractable landing gear from the hot exhaust of the supercharger. The high strength of the material is primarily due to the glass, while the asbestos increases abrasion resistance, the company said.

## New Water Repellent Rayon Fabric Has Shrinkage Control

A decided step forward in the practicality of water repellent rayon fabrics is a new cloth which is washable as well as weather protected. For the first time, according to a publicity announcement, the advantages of Zelan durable repellent and the Sanforized shrinkage control process are successfully combined on a vat-dyed, spun rayon fabric. The new fabric, called Jove Poplin, is a weave of 70 per cent rayon yarn stabilized with 30 per cent cotton by the Austinized process. It is introduced by Traub, Lyons, Oppenheim of New York, originators of this process.

Among claims are that rainwear made of this treated fabric not only sheds rain and resists spotting, thanks to the water repellent treatment, but can be safely washed at home because Sanforizing keeps the garment from shrinking out of shape. The Zelan finish retains its effect through many washings, saving the cost of reprocessing. Vat dyes, the fastest known to science, assure long-lasting color. Laundering does not spoil the soft drape and attractive luster of the fabric. Density and fluffiness of the cloth are said to increase its water repellency. With all these superior qualities of service and beauty, it is stated, the fabric still falls within the same price range as a good quality cotton fabric.

Tests of the fabric made by Du Pont with the new laboratory rain tester, which measures impact penetration resistance, reveal that the cloth equals or surpasses in this respect equivalent weight cotton fabrics now on the market.

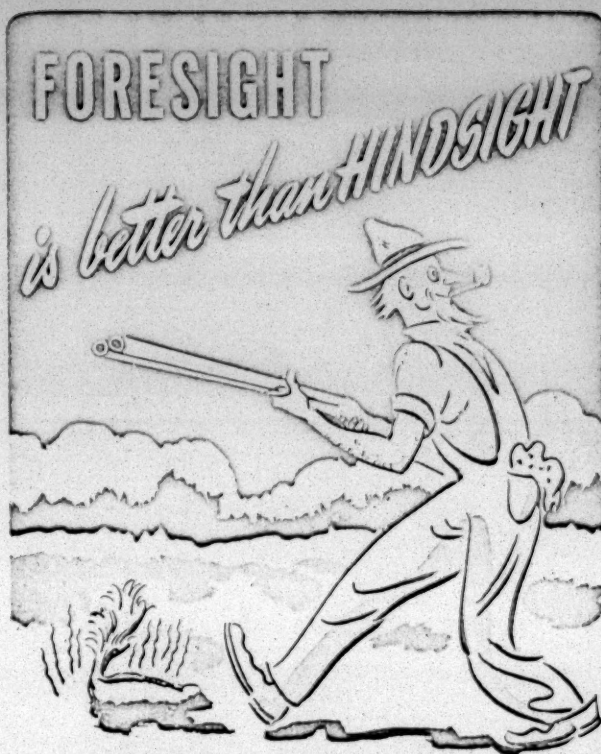
## New Weaves Exempt From Price Controls

The first procurement by the Army of four new constructions of cloth, still in the developmental stage, is exempt from price control, the Office of Price Administration announced recently. These four constructions of material are wind resistant, water repellent Oxford fabrics made wholly of combed cotton yarns for use by the armed forces as sleeping bags and shelter tents. The fabrics have never before been woven in American mills and lack of adequate information makes it impossible to establish prices at this time.

Delivery of the first procurement of these fabrics in the finished state is to be completed before Oct. 1, 1944. At that time accurate cost data should be available and prices may be established for later deliveries. Ordinarily, the gray fabrics would be priced under Maximum Price Regulation No. 11, and the finished fabrics under Maximum Price Regulation No. 127. "This action removes the four specified fabrics from under these two regulations. It places the four fabrics under Maximum Price Regulation No. 157, which exempts them from price control until Oct. 1, 1944, upon certification by sellers conforming with the requirement of that regulation.

## Equipment Placed in Vocational School

Hollister-Moreland Co. of Spartanburg, S. C., with the co-operation of Merrow Machine Co. and American Safety Table Co., has installed for educational purposes two style A high-speed Merrow machines on Amco individual motor tables in the North Carolina Vocational School at Belmont.



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OR OPERATING A MILL!

ASHWORTH CARD SURVEYS represent "foresight" to mill operators everywhere who are guarding against the damaging results of poor carding.

These mill men know that Ashworth's staff of practical card men will make a thorough survey of all clothing, chains, bearings and other wearing parts and will give them a complete report on their findings. They realize, further, that Ashworth card men suggest only essential card repairs and that they can budget these repairs over a period of years if they so desire.

In addition, they know that Ashworth's 3 factories, 6 repair shops and 7 distributing points guarantee continuous supply, prompt repairs and ready availability.

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Textile Laboratory  
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specifications on  
that cloth?  
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Is your work the same?  
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**STERLING RING TRAVELER CO.**  
FALL RIVER, MASS.

## Accident Prevention Through Housekeeping

(Continued from Page 28)

ing mills, which operate on clean stock, may go for as long a period as 17 weeks.

"You have to see the ball to hit it" is a baseball saying. The thought applies to industry also. Seeing is a task which requires light, and the speed of sight is partially controlled by the amount of light present. What relation does window washing have to the prevention of accidents? Many accidents are the result of poor illumination. In daytime the main source of light comes through the window, and the efficiency of the light transmission is dependent upon the cleanliness of the window glass. If dirt and lint are allowed to accumulate on the surface of the glass, the efficiency of light transmission is reduced, thereby affecting the ability of the employee to see his work properly or to clear himself of some hazardous operation. Such dirt accumulations will reduce light transmission from 25 to 50 per cent on vertical glass. The loss may go as high as 75 per cent on operating sash where the glass is left at an angle of 30 degrees off the vertical position. Not only can this operation of housekeeping be justified on a safety basis but its cost is cheap on a basis of light reclaimed by the cleaning of the window.

### Interior Zoning and Arrangement Plan

Zoning and arrangement are component parts of order. If they are well planned, they are set up on the basis of time and sequence of the operating processes. The straight chain conveyor scheme is an example of planned production according to order. Many operations cannot be streamlined to this extent, but zoning and arrangement can be made a part of any process. Most of the accidents that can be corrected by this program can be listed as follows: material storage accidents, tripping accidents, strains due to moving conveyor trucks through crowded aisles, cuts and sprains due to tripping over materials in congested aisles.

Arrangement of machinery in accordance with safe practice is taken for granted. The job of zoning and arrangement of auxiliary trucks, materials, aisles, etc., is a job for the mill supervisors. They know the needs and the movements of materials in process and how they can best fit the course of the work together. If equipment, trucks, etc., are necessary, they must have some time and place association with the remainder of the operation. Due to this relationship, there must be a definite place into which storage and use of the equipment produces the best efficiency. The location of auxiliary equipment by zoning and arrangement is the determining factor in accident reduction and improved efficiency. The establishment of good order is a prerequisite to the reduction of accidents.

Accidents in the yard area or on the exterior of the mill are rare because most of the personnel are employed inside the mill and do not travel about the yard. Yard accidents, however, can usually be traced to "poor housekeeping" in the yard. What yard cleaning standards should be established to help eliminate the accidents that occur on the yard? The area of many mill yards is large. Some of the areas should be kept very clean, and other areas need attention at less frequent intervals. To keep a mill yard clean, it is necessary to set up some standard and provide the means of doing the work. The standards established should

consider such factors as location, use, appearance and traffic of the areas.

A satisfactory plan is to provide two types of area classification; namely, "ground area" and "lawn area." The ground areas are classified as those areas that are to be cleaned and mowed periodically, not less often than once every 30 days. The lawn areas are those areas that are to be cleaned and mowed regularly with a rotary blade mower by which the grass will be cut to a height of about one inch. These lawn areas are cleaned at scheduled intervals of not less often than once every seven days. This system provides the time interval for cleaning the areas, and should there be areas where there is no grass, the cleaning would be done by the method thought to be best suited to the job. Control of yard traffic may also be considered from a housekeeping viewpoint. Necessary provisions for parking lot order, zoning of no parking areas, etc., must be made. Night lights at dark areas must also be provided if the mill yard is to be safe.

### A Painting Plan

Many industrial accidents occur because of some difficulty in seeing the physical equipment and materials. Many of these accidents happen to employees who have satisfactory eyesight. The accident cause in these instances is usually insufficient contrast, insufficient light or failure to recognize the hazard. The proper use of paint can do much to eliminate accidents produced from these causes.

Contrast and light have another partner—color—which plays a vital role in accident prevention. The use of colored paints in industry should not be left to the likes and dislikes of the individual. Color should have a functional purpose. Its use should have a meaning. For instance, each time an employee sees a red color it should relate to fire protective equipment or fire fighting facilities. Another example might show that another color would mark location of personal protective equipment or other safety devices. A code has been developed for pipe identification. This system has produced good results because it has functional meaning.

There is need of carrying this idea farther. There is need of a safety color code that would point out or warn the new and old employee of hazards and cause him to notice them quickly. Recognition of a hazard is necessary if one is to avoid injury. (See "A Safety Color Code for Industry," May 1, 1944, issue of TEXTILE BULLETIN—Ed.)

To make any plan function, there must be some responsibility and authority. Inspections are the field glasses through which progress is noted and new needs are cited. As these needed improvements are visualized, means will be developed to achieve the desired results. Weekly inspection of all the plants or mills is necessary to be acquainted with the changing details of the various housekeeping problems. Such reviews will inform the inspector, and will enable him to promote better housekeeping.

Observation, concentration, specifications, determination and effort are the propelling factors in the prevention of accidents through good housekeeping. Through observation one can locate the needs. Concentration provides the knowledge of what to do. By specification, the standard is set. Determination affords the sustained power, and through effort the necessary tasks are accomplished.

**SHIPPING QUIZ**  
ANSWER YES OR NO

Are your shipping packs designed to protect good-will from shipping point to destination? YES ☐ NO ☐

Are you certain that there is no waste material and weight in your cartons, boxes, crates, etc. . . . ? YES ☐ NO ☐

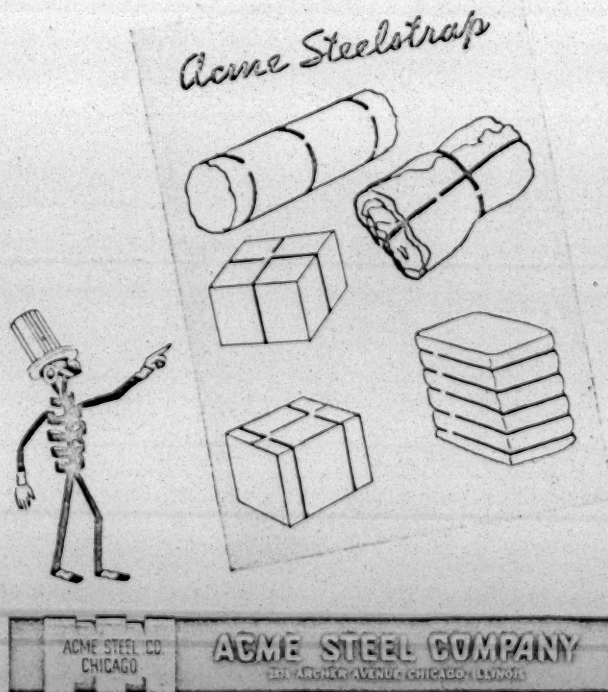
Have you investigated the Acme "Skid-Load" method that speeds shipments and reduces costs? YES ☐ NO ☐

Have you investigated the Acme "Unit-Load" method that lowers cost—helps shipper and receiver? YES ☐ NO ☐

*Share Your Answer TO PERFECTION IN SHIPPING—PROTECTION—BOUND TOGETHER!*

Every product needs a periodical "check-up" to see that your shipments are "Bound To Get There" safer — that your product is packed to fight damage and arrive "right side up with care."

If your answer is "yes" to all of these questions—you can pass your shipping examination with flying colors.—If you haven't all the answers — call for a "check-up" by Acme technical men—there is no obligation.





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## EXPORT

SOUTH AND CENTRAL AMERICA  
**CURACAO TRADING CO., INC.**

82 WALL ST., NEW YORK 5, N. Y.

INVITES OFFERS of cotton and rayon fabrics for its branches in the Dominican Republic, Cuba, Haiti, Honduras, Guatemala, El Salvador, Costa Rica, Colombia, Venezuela, Surinam and Curaçao.

## Cotton Goods Market

NEW YORK.—"There is still a demand for practically everything in textiles beyond any possible supply in both yarns and cloth," a Worth Street merchant stated recently. "We feel that we are now at the peak in wartime production and expect to see some tapering off in the not far distant future. This we would welcome. The prompt returning of the Montgomery-Ward properties to the management by the government was largely forced by public opinion, and we hope that the results of the Congressional investigation will prevent the recurrence of such a seizure."

"The one thing which is paramount in bridging over the readjustment period is the question of taxes. While high taxes are cheerfully paid during the war period, it is necessary to have some modification of war taxes to give business courage to go ahead. A proper easing off of war taxes will do more to take the burden of re-employment off the government than any other solution we can see. The prime necessity of the post-war period will be, as the First National Bank of Boston expresses it, to remove the obstacles that block the flow of capital and business enterprise and to dissipate clouds of uncertainty so that business may face the future with faith and thus make long term commitments which will furnish jobs and avoid relief rolls being provided by the government. Unsound taxes stop new ventures and put the brake on progress. Carried to its logical conclusion, the system of confiscatory taxation destroys wealth and distributes poverty."

"Again we want to point out the necessity of definite forms being drawn up now for the cancellation of war contracts. Yarn contracts can be cancelled by one formula, cloth by another, and munitions, ships, planes, etc., by others, but each war item should work out with as little delay as possible a definite form of cancellation so that the various industries know exactly where they stand. We feel we will know a great deal more about the future in a few weeks. In the meantime, we are awaiting developments."

Less than half of the cotton fabrics sought for Lend-Lease have been obtained, it has been learned at the New York office of the Treasury Department. Requiring a total of 91,072,000 yards of 15 different types of cloth, 46,300,000 yards remain unoffered.

Australia's need of various fabrics is said to be the most acute. Although only 2,000,000 of the 30,000,000 yards allotted to this ally remains unoffered. Additional procurement of 13,000,000 yards of miscellaneous fabrics are wanted for this country as soon as the old backlog is covered. The desperate shortage of cloth in Australia is attributed to the inability of Great Britain to continue pre-war deliveries.

**J. P. STEVENS & CO., Inc.**

*(Incorporated in the United States)*

1100 BROADWAY

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NEW YORK

NEW YORK

# Cotton Yarns Market

PHILADELPHIA.—Official action to stay the induction of most of the 26-to-30-year-old men for at least six months and indefinitely defer the older men in industry was greeted with enthusiasm among cotton yarn distributors and their customers. Comment was made that it would be an extra help if the government would send back those over 30 already inducted, but it is not expected this will be done. It was stated there is no doubt of the ability of the sale yarn industry to prove it is essential. The point was made that in the industry, few get to be foremen before they are 30, so that this government action will prevent further draft losses of mill operating executives.

A beneficial effect on sale yarn production, it was said, can be expected to follow this action. How long it may take for this anticipated output gain to benefit civilian users, nobody cared to predict but it is recognized that a good many civilian yarn users will be adjudged essential by the draft boards, whose business it is to interpret the new regulations in their communities.

Inquiry among market spokesmen or lines that regularly use sale cotton yarn shows they figure the more lenient draft arrangements will aid them and it is said this may serve to maintain in active business quite a number who planned to shut down. In some lines, manpower supply was the determining factor. In others, lack of yarn has been their worst difficulty.

The Census Bureau has reported that cotton consumed during April totaled 776,007 bales of lint, compared with 902,102 in March this year and 939,178 in April last year. Consumption for the nine months ending April 30 totaled 7,580,279 bales of lint compared with 8,439,480 in the corresponding period a year ago.

Cotton spindles active during April numbered 22,411,922, compared with 22,528,308 during March this year, and 22,894,718 during April last year. Cotton consumed during April included: in cotton-growing states, 681,253 bales, compared with 189,303 in March this year, and 818,099 in April last year, and for the nine months, 6,655,689 bales, compared with 7,314,702 in the corresponding period a year ago, and in the New England states, 75,834 bales in April, compared with 90,077 in March this year, and 94,781 in April last year, and for the nine months, 727,821 bales, compared with 892,560.

## KNITTING WEAVING YARNS

Sell us your surplus yarns. Firsts or mixed. White or colored. Cotton or synthetics.

Wire or write offerings

**D. W. PEACH & Co.**  
Gastonia, N. C.

*Today...*

**IT'S QUALITY THAT COUNTS!**

The trade knows that modern standards ... war standards ... demand A-1 quality. And they know, because of 68 years of experience, that BORNE SCRYMSEY WOOL OILS give them not only the highest quality but value as well.

- ★ BRETON OILS FOR WOOL
- ★ XX SAPONIFIED OIL FOR WOOL
- ★ RER SPECIAL WOOL OIL
- ★ SS WOOL OIL

Highest quality also in:

Apron Oils • Shear Oils • Loom Oils  
Comb Box Lubricants  
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Quality Assurance

**BORNE SCRYMSEY COMPANY**  
Originators of the BRETON MINEROL PROCESS for FIBRE CONDITIONING  
ESTABLISHED 1874  
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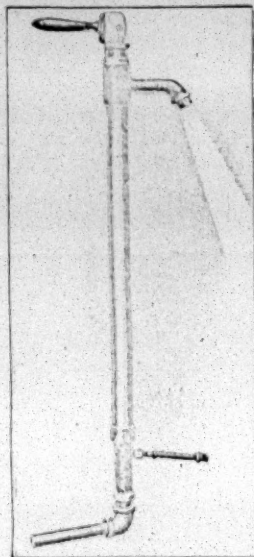
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*Remember the name*



**VOGEL FROST-PROOF HYDRANT**  
Running water every day of the year. Will never freeze when properly installed. Nearly 100,000 in use.

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Yes, remember it well because it is a symbol of satisfaction among customers and plumbers alike.

Vogel Frost-Proof Hydrants are serving the war effort throughout the Nation—in war plants of all kinds, in shipyards and on thousands of farms... And they are serving in the traditional Vogel way—economically and dependably—day in and day out.

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ROLLER SLASHER AND CLEARER CLOTH  
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*"All Wool"* *Reg. U.S. Pat. Off.*

## Textile Production Under Wartime Controls

(Continued from Page 16)

crisis, the greatest bottleneck, is still ahead of us and that no single stone should be left unturned to work and prepare. As to the war itself being over "he who runs may read," but it seems to me that in the year ahead the calls on each and every one of us may be far greater than ever before.

One of the principal problems that has been causing us worry in Washington is that of keeping a supply of cheaper essential goods flowing freely to the public. With rigid ceilings on the cheaper staple fabrics, a tendency of many producers and distributors has been to style up and make and sell merchandise in higher and more profitable price brackets. The tremendous extra spending power in the hands of the public has encouraged this, and with almost anything saleable in these days and times, many manufacturers and distributors have looked upon the situation as an opportunity to edge into higher priced fields. We have taken a great many stringent measures to prevent this trend, and so has the OPA. Yet many say we have not gone far enough, and many experts, advisors and others concerned about the trend have been pushing our bureau as to what we could and should do for further control. Ultimately it may be necessary for us to do a great deal more. As manufacturers and distributors I urge your co-operation in this particular problem. We will appreciate your help and suggestions. If the various branches of the industry will bend every effort to keep their popularly priced merchandise in normal proportions flowing freely, they can by this action avoid more and rigid regulatory measures from Washington.

There is just one other thought I would like to leave with you as to our work in Washington. War is not that type of game with rules set so that the burdens and responsibilities fall on each and every one alike, so that the losses are fairly apportioned among all elements. It is impossible to wage all-out war without some being hurt more than others, and this applies to the home fronts as well as to the battle fronts. Washington agencies recognize that these circumstances are inevitable, yet all strive toward minimizing injuries and avoiding inequities insofar as is reasonably possible with due consideration of our great needs and requirements. In the War Production Board, these are among the objectives constantly before us.

Let me close with a plea for your continued distinctive co-operation as in the past. We must set our production goal as high as possible and move heaven and earth to attain it. We must tackle our problems with renewed consecration.

## Cotton Yarn Supplies—Present and Prospective

(Continued from Page 26)

the Arctic as well; has adopted it where the best was required and where price was no object. Today, from the farmer who plants the seed on through to the converter and processor of our product, we are a research-minded people. For we realize that only as we are able to furnish you a better product, a more versatile product, and a more appealing product, can we hope to continue to count the knitting industry as our best customer. To this end, we shall strive.

## Rayon Is Playing An Important Role At Battlefronts

Study of front-line newspaper dispatches gives many indications of the part that rayon is playing on the battlefronts from New Guinea, Rabaul and the Carolines to Cassino and the Anzio beachhead in Italy. American Viscose Corp. reported recently.

Frequent references are made to the use of rayon fragmentation bomb parachutes from low-flying planes. These have been of particular value in destroying Japanese planes on the ground as our forces have advanced in New Guinea and through the Gilbert and Marshall Islands toward Truk. A recent report from Allied headquarters at Naples, describing the defeat of the Germans' third and strongest attempt to take the Allied beachhead, stated that the Germans broke under an unprecedented battering by Allied planes. Some 40,000 fragmentation bombs were hurtled down among the German front-line troops and their reinforcements massing in rear of the beachhead. Counting their dead in the hundreds, the three crack Nazi divisions that launched the offensive fell back to their initial jumping-off place.

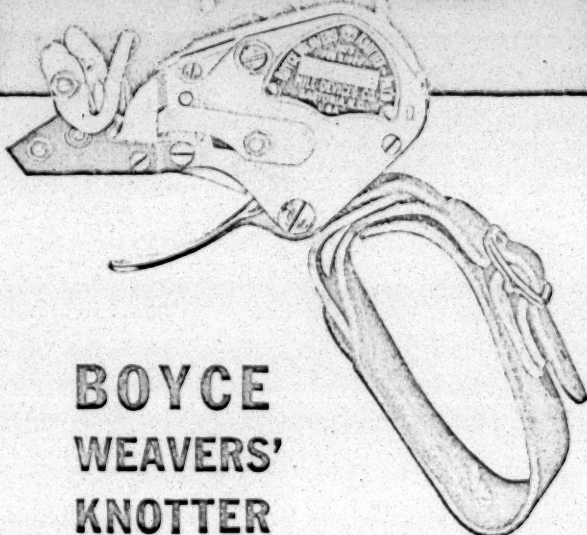
Fragmentation bombs are also being used to help wipe out German fighter plane factories and repair depots. Reporting on the highly successful raid on the Messerschmitt 110 repair plant at Furth, the official report stated that the plant was hit by a "spectacular concentration of high explosive and fragmentation bombs." The latter very likely were dropped by rayon parachutes. Other dispatches mention the use of rayon cargo and aerial delivery parachutes that drop supplies, equipment, ammunition and medicines to troops in forward or isolated positions. These have been specially valuable in the Burma, New Guinea and Solomon Islands campaigns, but have been used exclusively in all the battle areas. One recent dispatch from Italy described how invader dive bombers in March dropped 265 packs of food, water and ammunition to Allied ground forces fighting on isolated peaks near Abbey Hill on the Cassino front.

Rayon and rubber self-sealing fuel cells or gasoline tanks are not frequently referred to by the war correspondents, but the part that they are playing in saving American and Allied flyers' lives is of outstanding importance. In most modern American fighting planes, almost every spare cubic inch of wing space is occupied by a fuel cell. A single bomber may have as many as 30 different shapes of fuel cells, so great is the need for fuel-carrying capacity and range. Fuel cells in bombers range from 40-gallon to 700-gallon cells. In a fuel cell a strong rayon fabric surrounds a layer of rubber. When a bullet penetrates the cell, the rubber swells up on contact with escaping gasoline and plugs the leak. A cell may be punctured by damaging 50-caliber machine-gun bullets many times, yet no fuel escapes. The use of these cells prevents planes from going down in flames, and makes the planes of today far safer than the "flaming coffins" of World War I, which one incendiary bullet would ignite.

Uncle Sam's fighting men are currently outfitted with a lined jacket made of olive drab cotton which may affect the styling of civilian garments in the near future and during the post-war era. It has a pile fabric lining, six buttons and loops for closure, knitted wool collar and knitted bands for cuffs.

Even with the  
**FINEST RAYON YARNS**

Perfect  
Weavers'  
Knots



### BOYCE WEAVERS' KNOTTER

In these days of shortages, the speed and skill that is built into the Boyce Weavers' Knotter helps take up the slack of inexperienced help. The Boyce Knotter works just as fast and accurately for beginners—ties a perfect weavers' knot in the twinkle of an eye.

The Boyce System of Repair Service eliminates any time losses by loaning service knotters while rebuilding or replacing worn parts.

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## Many models for many purposes

\* Scott Testers are made in all capacities from single hair to 2,000 lbs. for tensile, burst, flexing, crepeage, hysteresis, etc. Machine shown at left is Model J-2 for skein or single end yarn testing.

**SCOTT TESTERS**

\* Registered Trademark

The 60 models of \*Scott Testers span the field of physical testing requirements for tensile, hysteresis, crepeage, twist, burst, flexing, etc., etc. We offer every assistance in adapting your Scott Testers to the requirements of wartime production.

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SOUTHERN REPRESENTATIVE **JOHN KLINCK** 304 FOREST AVENUE  
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**BOILERS**

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**Monel Metal**

**R. D. COLE MANUFACTURING CO.**  
NEWNAN, GEORGIA  
ESTABLISHED 1854

## New Booklet Promotes Rayon and Vinyon

A new booklet describing how research is developing new uses for rayon and vinyon has been issued by American Viscose Corp. These two man-made fibers are subject to production control, the booklet points out, and their characteristics can therefore be varied to make them suitable for different purposes. Thus rayon is not a single textile fiber, as is commonly supposed, but in reality is a whole family of related fibers, possessing a wide variety of different characteristics. It is largely because of this fact that rayon is considered the most versatile of the textile fibers.

Uses for rayon developed by research and described briefly in the booklet include fabric for the tires of bombers and fighting planes as well as for Army trucks, jeeps and guns and for heavy-duty synthetic rubber tires for civilian commercial use on trucks and buses; rayon bomb and cargo parachutes; rayon wiping cloths—practically lint free—used in polishing and grinding lenses for rangefinders, binoculars and other high-quality optical equipment; rayon paint brush bristles; rayon mantles for kerosene lamps; rayon "precision gloves" that enable flyers to handle maps and instruments without freezing their fingers when flying in sub-zero temperatures; and rayon and rubber self-sealing fuel cells for bombers and fighting planes.

The most important industrial application of vinyon, as noted in the booklet, is its use in industrial filter cloths used in the production of synthetic rubber, high-octane gasoline and other vital war products. Vinyon is of value for this purpose because of its high resistance to acids. Vinyon is also made in the form of an elastic yarn and the booklet describes the use of this yarn in elastic bandages, knee braces and surgical stockings. When elastic vinyon becomes available for civilian use, the booklet states that it will be used in girdles, corsets, bathing suits and other articles of wearing apparel.

## Lagasse Loom Temple Co. Formed

Lagasse Loom Temple Co. has recently been formed over the former business of Alfred Lagasse of Fall River, Mass. The partners of the firm are R. L. Sjostrom of the Sjostrom Machine Co. of Lawrence, Mass., and Alfred Lagasse, originator and inventor of the corrugated loom temple. Offices and plant are located in the Everett Mills Building, Lawrence, Mass.

The Lagasse Temple Roll Co. is producing all the conventional types of temple roll together with the new "Templeware" temple roll widely used by rayon weavers.

## Allis-Chalmers Issues V-Belt Bulletin

A new 44-page bulletin describing its complete line of fractional horsepower Texrope V-belts and sheaves has been released by Allis-Chalmers. Bulletin B-6249 offers simplified engineering data for fractional horsepower drives. Horsepower ratings are based on driven revolutions per minute and on belt velocity. Also included in the new book are working formulas from which correctly-engineered fractional horsepower drives can easily be derived.

Amplified with installative photographs, line drawings and selection tables, the bulletin will be of interest to operators of fans, blowers, pumps, stokers, oil burn-

ers, processing equipment and numerous other appliances. For complete fractional horsepower drive information, send for Bulletin B-6249, Allis-Chalmers Mfg. Co., Milwaukee 1, Wis.

### Cotton Council Puts Forward Its Formula for Textile Ceilings

Declaring that existing OPA price ceilings on cotton textiles are in violation of an act of Congress, the National Cotton Council this month told the House banking and currency committee that clothing rationing may result this year unless textile ceilings are revised to conform to current production costs. The council's statement was presented to the committee in its consideration of legislation to extend the emergency price control act, and was in answer to a statement filed with the committee by the OPA opposing a textile ceiling formula submitted by the council.

The council formula, presented in the form of amendments to the price control act, provides that ceilings on cotton textiles shall be based upon parity prices for cotton, plus manufacturing costs designed to assure maximum production plus a reasonable profit. The formula previously had been submitted to OPA. It subsequently was drafted in the form of amendments to the act in an effort to guarantee its adoption by OPA.

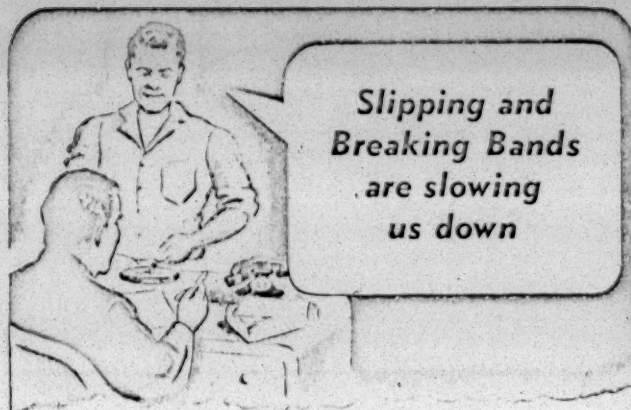
Questioning OPA's attack on the formula's method for computing manufacturing costs of cotton textiles, the council said the fundamental point involved is whether the obtaining of maximum production or the minimizing of profits shall be the controlling consideration.

"In our opinion," the council added, "there is only one answer that makes sense, in view of our pressing need for greater textile production. The ceilings should be based on a manufacturing cost that will obtain maximum production from the mills making at least 90 per cent of a particular type of construction, and let the excess profits brackets of the income tax take care of any extra profits that might accrue to some mills under such a procedure. With excess profits taxes ranging up to 95 per cent, there is little need to worry about exorbitant profits. It certainly is better to have our essential textile requirements at a slightly higher price than not to have them at all. A ceiling price is worthless on a product that isn't obtainable."

In its assault on the formula's stipulation that ceiling prices include a reasonable profit, the OPA had declared that "to include the element of profit in the price for each product would still be destructive of effective price control."

"Here, again," the council told the committeemen, "OPA returns to its old theory of taking 'over-all industry earnings' as a whole. Clearly this is a theory that is utterly incompatible with a realistic pricing policy that will increase instead of decrease cotton textile production. It should be abandoned immediately."

The council's proposed formula was immediately described by Representatives Patman of Texas and Brown of Georgia as "very fair." Patman added that "the law is very plain that what you propose should be done, but the OPA refused to do it." Brown said the proposal "looks like the only reasonable way to carry out the law." Other members of the committee expressed similar approval.

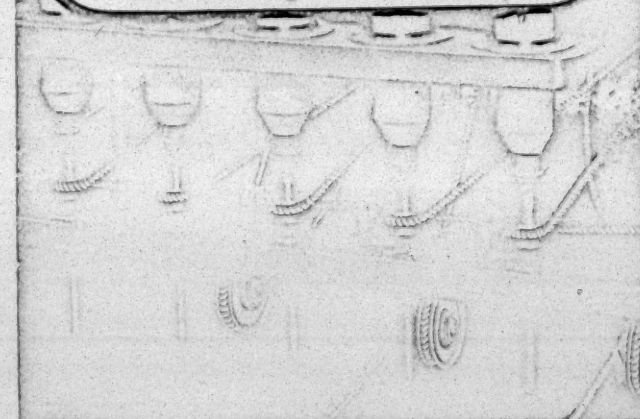


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## Research and Higher Education in Textiles

(Continued from Page 18)

own research organization, assuming that the industry is not yet ready to amalgamate the knowledge of the various processes for the common good. But there are an infinite number of problems the solution of which would be amenable to every manufacturer, and of which honorable competitive procedures would not be obstructed. Laboratories in the colleges, therefore, could be of the greatest good to the industry. The work could be done in the textile schools more economically since the plant physiologist, the biochemist, the soil scientist, the physicist, the engineer and many other scientists are available as consultants and co-workers and as stimulating influences on the educational trends of young men. With leadership of purpose a very sympathetic assistance could be brought together among these scientists. Most important is exposing the curiosity of young students to textile problems. Nothing is more stimulating to a potential researcher than that of being privileged to observe facts in the making and to be made to visualize hunches and hypothesis on discovery, the richest appeal for student effort. In the fields of graduate study and research a co-operative program participated in by the several recognized textile schools is worthy of consideration. A co-operative program would expose the students to a diversity of educational objectives. Whatever the final plan his education must remain in continuity with textiles.

The Southern schools have needed finances. There have been and are now many potential scholars and scientists in the Southern states. I believe the young men of the Southern states offer the schools and industry a continuous and promising source of high type textileists. The industry may profit advantageously by helping promising young men through college through loan funds. Surely there are many brilliant young men in the textile villages who are financially poor, but with talents of promise and deserving of encouragement. Educating the best of the young men of the mill villages would no doubt have other beneficial effects on the general workers.

Whether or not the cotton fiber can be silkized, linenized and/or proteinized by the genetists, the plant physiologist, the chemist or the engineer is not known. The possibilities of their being improved offer a virgin field for the scientists and somewhere along the line the Southern textile industry should share compensation for the present and manifest interest directed toward improving an industry which serves the livelihood of so many people.

## OPA Explains Application of MPR-118

All producers of gray soft-filled napped sheetings and flannels must use dollar and cents ceiling prices given in the cotton products regulation — Maximum Price Regulation 118—the Office of Price Administration said May 8. These fabrics are not covered by Maximum Price Regulation 127. OPA emphasized.

The regulation covering these fabrics (MPR-118) lists the specific dollar and cents prices for all gray soft-filled sheetings as well as specific dollar and cents premiums that may be added to the ceilings of the gray goods after it has been napped. The premiums as listed in the regulation are

the only premiums that may be used by any producer. In the case of flannels, the regulation lists specific dollar and cents prices for all types of flannels. These are the only prices allowable for bleached, dyed or printed flannels, and these prices apply to everyone except retailers or wholesalers who are covered by the General Maximum Price Regulation.

OPA said the foregoing statement was necessary because certain producers are incorrectly figuring the ceiling prices for napped gray cloth and flannels by dividing the sum of the gray cloth ceiling plus the finishing charge by a markup factor selected from the finished piece goods regulation. OPA states that the finished piece goods regulation—MPR-127—is not to be used in determining the ceiling prices for napped gray soft-filled sheetings, or bleached, dyed or printed flannels. OPA also points out that MPR-118 provides for the prices of many finished fabrics as well as gray goods, and as specifically stated in MPR-127, no finished fabric covered by MPR-118 may be priced under MPR-127.

### Green and Brown Camouflage Uniform Discontinued By QMC

The mottled green-and-brown camouflage jungle uniform, long the distinguishing battle garment of the American jungle fighter, is being discontinued in favor of a solid color uniform in a dark shade of olive drab, the War Department reports. The new jungle uniform is none other than the regulation GI two-piece fatigue suit of herringbone twill, known to millions of American soldiers as the uniform in which they learned to be fighters, but made in a slightly darker shade than the suit issued in the United States.

The change is being made at the direction of the commanding general of the Southwest Pacific theater of operations, Gen. Douglas MacArthur, and is the newest development in the Quartermaster Corps' never-ending search for the most effective camouflage designs. While the present green and brown mottled design is effective as long as the wearer remains comparatively motionless, the dark olive drab is believed to be more suitable for the vigorously active battle movements which now characterize the fighting in jungle areas.

Although the green and brown camouflage uniform has been pictured in a thousand advertisements and story illustrations and has become almost as much a part of the American jungle fighter's equipment as his steel helmet, only a comparatively few of them were actually used in routing the Japs from strongholds in the Pacific islands. The men wore herringbone twill fatigue suits of either the one-piece or two-piece design, or whatever other dull-colored clothing was available—even the olive drab undershirts and shorts when dive-bombing insects and shade from the intense rays of the tropical sun permitted. They seem to have done just as well in any uniform or part of a uniform as in the picturesque camouflage outfit.

The manufacture of the mottled camouflage uniform, supplied by the Quartermaster Corps in both one-piece and two-piece models, will be discontinued for the present and no more will be sent to jungle areas at this time except those already earmarked for shipment.

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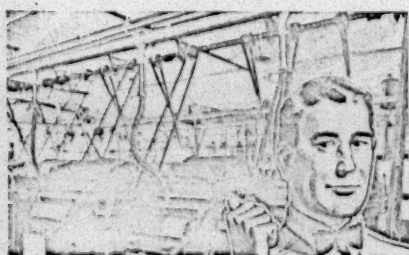
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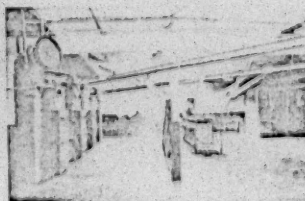
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## Velon—Its Textile Applications

(Continued from Page 21)

ed a powder from gases? Yes. The ethylene and chlorine are combined under pressure into trichlorethane, a liquid which when treated with lime produces vinylidene chloride, a low boiling point liquid. When this is treated with a small amount of vinyl chloride (a gas at atmospheric pressure), by mixing in an autoclave in the presence of a catalyst, the result is a solid in the form of cream-colored lumps. These are mixed with a plasticizer, dyes or pigments, then fused and ground into powder or into granules. As a powder it is used to make Velon extruded products, in granules to make molded goods. Dyed Velon is very shiny and translucent. Pigmented filaments are opaque and not as brilliant as the dyed.

At the Paterson plant the powder is received in a variety of colors. Powdered Saran is fed into a hopper of one of a battery of extruders. The extruding machines have a horizontal chamber in which there is a revolving screw, like a screw conveyor, which pushes the powder toward the protruding die. As the powder is forced toward the die, it is melt in stages by heat—each stage producing a greater degree of plasticity.

### Formation of Filament

Just before the material is forced through 12 circular holes in the die it is heated to about 320° F. and becomes fluid. The die holes may be anywhere from .007 inch to 0.10 inch to produce finished Velon filament of those diameters. As they emerge from the extruder, the filaments are in the amorphous state, soft and flexible. To make them crystalline and hard, the filaments are passed over rolls in a water bath. The filaments then are oriented, or stretched. This is accomplished by passing them over two sets of rolls, one set revolving slowly, the other rapidly. Completely oriented, the Velon is relatively hard and of final diameter.

Four thousand yards of 0.011-inch diameter weigh one pound. The filament is wound on reels, then unwound onto spools, which are sent to a weaving mill of Hafner Associates, Inc., on Long Island (where Firestone has installed its looms) to be made into material for window screens, mosquito netting and inner soles for shoes. Either rolling or some other process may be used to impart a soft, smooth surface to ordinary woven Velon. A wide variety of effects may be obtained by different weaving constructions and the use of different sizes and colors of filaments.

Firestone Industrial Products Co. has been manufacturing Velon for more than a year—although it secured its license for extrusion of filament from Dow in 1941. Dow Chemical Co. has been developing the raw material and the process of extruding of the filament to make it for over ten years. The basic chemical, vinylidene chloride, is not new by any means; it was first made in 1838 by the then famous French chemist V. Regnault. Later chemists named it dichloroethylene and, apparently, found no use for it.

The polymerization of vinylidene chloride, while reported in 1922, was not accomplished until Dow Chemical Co. undertook research on the product. The company's commercial production began in 1940, and Firestone Industrial Products Co. became the first licensee. Saran is made in a

number of types for the manufacture of products with different properties.

Firestone Industrial Products Co. had the task of redesigning the extruding machines and determining the correct speeds of extrusion, cooling and orientation. It also had to develop, with the help of the Hafner company, modifications of existing looms so that the Velon could be woven at fairly high speed into perfect fabrics.

### Production Increase is Goal of S. C. Cotton Manufacturers

(Continued from Page 13)

written by Dr. William Hays Simpson during the year and has been published and placed in leading libraries, establishing an authentic picture of cotton mill villages.

In addition to the president's report the treasurer, Dr. Jacobs, submitted the audit of L. C. Lodge, public accountant, as his report for the financial affairs of the association.

Dr. George Wilds, president of Coker's Pedigreed Seed Co. of Hartsville, addressed the association on the subject of improvement in the length, strength and uniformity of staple of cotton and the production of a staple which will enable state farmers to supply a large percentage of the raw cotton needs of South Carolina cotton mills.

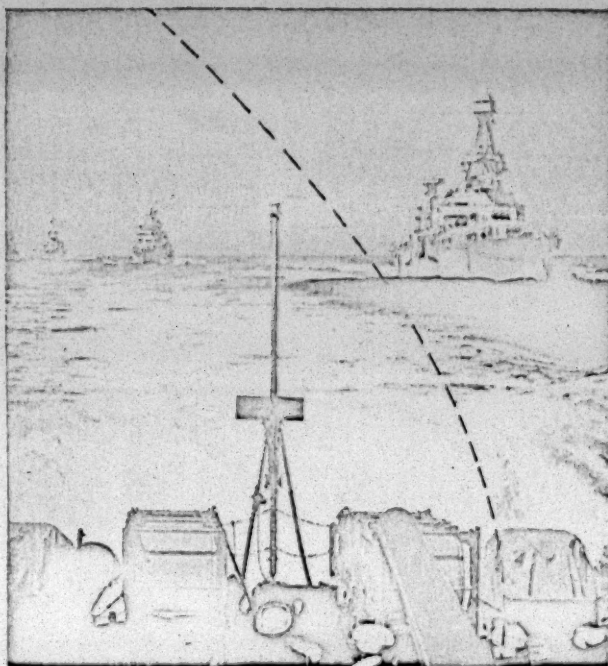
"No group is more cognizant of the fact that cotton in the United States has been fighting a hard battle," he told the manufacturers. He pointed to artificial price measures which encouraged foreign production and development of competing fibers and to plans for greatly increasing the manufacture of such fibers after the war. An illustration of what has been accomplished, he said, is the improvement in the South Carolina crop.

"We know," Dr. Wilds said, "that we have cottons now in production that can meet mill specifications and have others in the immediate offing of still higher spinning values. With breeders, growers and manufacturers working together, cotton will survive and more than meet the competition offered by synthetic fibers."

Officers of the Army's Fourth Service Command, it was announced, are planning to send into mill communities of South Carolina spokesmen accompanied by heroes from the front, who with samples of textile relics propose to emphasize the importance of cotton textiles in the war.

The annual meeting of the J. E. Sirrine Textile Foundation was held with R. H. Chapman, president, presiding. Mr. Hagood and Dr. Jacobs were added to the trustees, others being R. E. Henry, J. E. Sirrine, S. H. Swint, B. B. Gossett, W. S. Montgomery, C. B. Hayes, W. A. L. Sibley, R. W. Arrington, Charles B. Nichols, Robert H. Chapman, W. H. Beattie and George M. Wright. The other officers are R. W. Arrington, vice-president, and Dr. Jacobs, treasurer.

The Print Cloth Group met with C. E. Hatch, chairman, presiding. All officers and directors were re-elected. They are, besides Mr. Hatch, Mr. Wright, assistant chairman, W. H. Beattie, assistant chairman, and Dr. Jacobs, director and secretary-treasurer; M. P. Orr, C. B. Hayes, J. C. Evins, H. K. Hallett, George M. Wright, Allen F. Johnson, Ellison S. McKissick, J. B. Harris and B. F. Hagood, executive committee; Mr. Hatch and Mr. Sirrine, advisory committee; and for 12-month memberships J. A. Chapman and F. W. Symmes to serve with holdover members.



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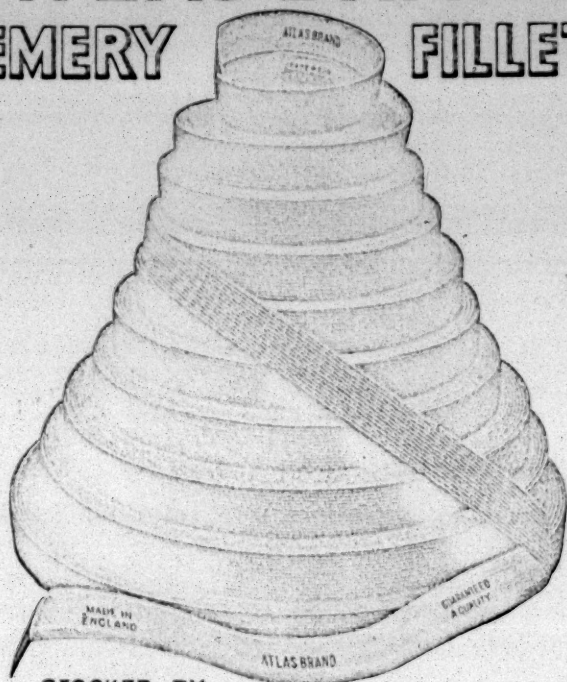
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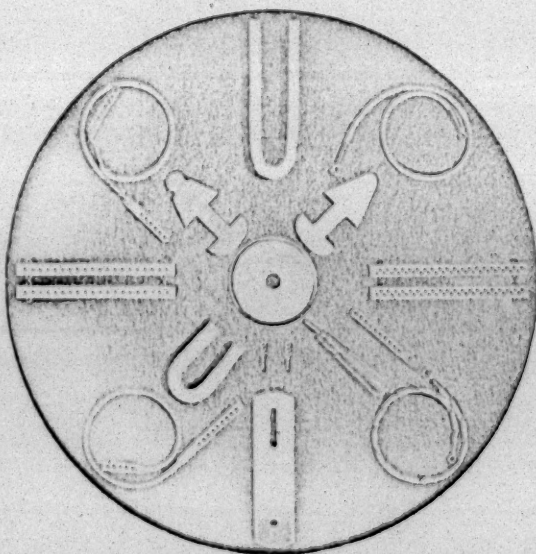


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## War Role of Corn Products Pictured

Many millions of bushels of corn, grown in the American corn belt, are milled annually to go into the production of war necessities. This is one of several little-known facts about corn that are brought out in a booklet, "Corn Facts and Figures," published by the Corn Industries Research Foundation. Such major industries as textiles, paper and paper products, metals, adhesives, fibreboard containers, and drugs and pharmaceuticals require more than 30,000,000 bushels of corn a year in their operations, it is stated. A list is given of 500-odd uses of such products as corn starch, corn syrup, corn sugar, corn oil, etc., for industrial, food and livestock purposes.

Regarding the direct war uses of products of corn, it is pointed out that in metal castings for airplane and truck engines for example, dextrin is used extensively as a core binder, and that the non-leaking rubber-covered gas tank of airplanes is molded in a form strengthened with dextrin. Also, "the world's best-dressed and best-equipped soldier, the American doughboy, requires 120 pounds of cotton fabrics per man per year. Practically every yard of cotton cloth used in producing these goods requires starch and dextrin in its manufacture."

The current serious shortage of corn gives particular significance to the statement that "a critical shortage of milled corn products would adversely affect the country's military effort since the war program would be subjected to serious dislocations." The purpose of the publication, according to the Corn Industries Research Foundation, is to give an over-all picture of the importance of corn to American agriculture, marketing agencies, industries and the war effort.

## Air Conditioning Useful in Ohio Plant

A vital feature in the manufacture of fabrics for such war equipment as signal panels, life rafts and airplanes at the Columbus (Ohio) Coated Fabrics Corp. is the maintenance of constant temperature and relative humidity during laboratory tests of cloths employed, as well as in the manufacturing of the coated fabrics.

Alfred Shutt of Columbus Coated Fabrics said recently: "Air conditioning equipment was installed in our pyroxylin coating mill and is used for the purpose of evaporating the solvents used in the coating of the various fabrics by means of an even flow of heated air, the delivery and circulation of which is controlled by Carrier equipment." Self-contained air conditioning equipment manufactured by the Carrier Corp. of Syracuse, N. Y., is used to condition the laboratory air.

## New Glyco Catalog Is Available

The new 144-page catalog, "Chemicals by Glyco" of Glyco Products Co., Inc., Brooklyn, N. J., was released recently. The usual features have been retained and the manual is complete with formulae, suggestions and tables of useful chemical and physical data. All chemists, technical workers and executives in the chemical industry are invited to write to the Glyco Products Co., Inc., 26 Court St., Brooklyn 2, N. Y., for a free copy.

## New Method of Dyeing Acetate Rayon Is Developed

A new method of dyeing acetate rayon fabrics, which gives such fabrics dyed in a number of colors a high degree of resistance to atmospheric gas fading, has been developed by North Carolina Fabrics Corp. at Salisbury, N. C., in co-operation with technicians of the American Viscose Corp. To date a line of six colors has been developed by North Carolina Fabrics Corp., all of which show no fading or color loss after 60 hours' exposure to atmospheric gases under test conditions. Additional colors are being developed as rapidly as conditions permit. The tests are conducted in accordance with the methods established by the American Association of Textile Chemists and Colorists, and the 60-hour period is considerably longer than the standard test requirement. The A.A.T.C.C. test for atmospheric gas fading is accomplished by the use of a relatively new type of apparatus. The equipment for making gas fading tests consists essentially of an air tight glass door chamber with vents at the bottom for the inflow of gases of combustion from a Bunsen burner and an outlet for these gases. The burner is provided with a fish tail to give a conical flame, with a blue bottom and yellow tip, which is adjusted at a distance from the inflow gas flue so as to regulate the temperature of gases in the chamber, not to exceed 140° F. Baffle plates with holes drilled in the top are placed opposite each other in the chamber in a manner to allow suspension of fabrics being tested from rods placed through holes horizontally, and air circulation is accomplished by a fan. A control sample of known service experience is run along with three test samples. One test sample is the original fabric before dry cleaning or laundering, the second is the fabric after dry cleaning, and the third is the fabric after laundering. The duration of the test is limited to the time required to produce a fading in the control piece.

## Colombia To Have Independent Industry

Although Colombia will be one of the important post-war markets in South America for machinery made in the United States, its purchases of consumer and consumer-durable goods will be limited. This is the opinion expressed by Ralph Johnson, general sales manager for the International General Electric Co. in Colombia, during a visit to New York City.

"Under the guidance of its Fomento Industrial, Colombia is becoming one of the richest Latin-American nations," Mr. Johnson said. "But its aims to produce its own consumer goods will reduce its imports of such United States goods. And until either it raises its per capita income or we lower our prices, it will not be able to buy consumer-durable goods in the quantities popularly predicted."

The Fomento Industrial's plans for expanding Colombian industry will, of course, stimulate imports of durable goods of all kinds from the United States, Mr. Johnson pointed out. Summarizing new Colombian developments, Mr. Johnson said that the textile industry is growing rapidly and within ten years Colombia not only should be independent of the rest of the world as far as cottons, woollens and rayons are concerned, but will probably be selling its textiles in neighboring countries.

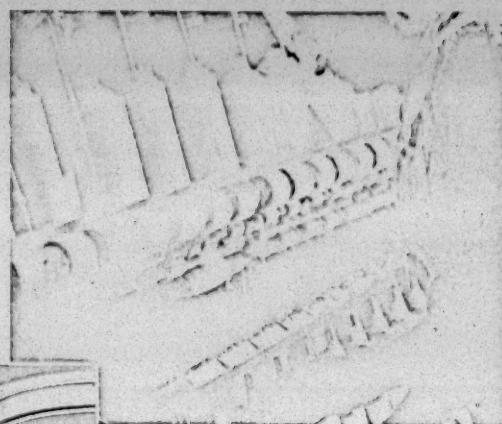
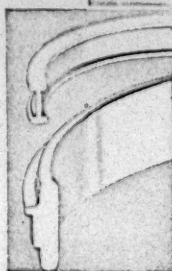


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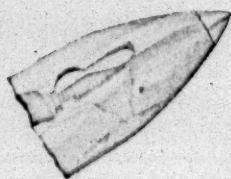
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## Lightweight Army Poncho Made of Nylon

A new lightweight multiple-purpose poncho, made of coated nylon fabric, has been developed by the Office of the Quartermaster General and is soon to be issued to troops in tropical combat areas. The nylon poncho weighs about 30 ounces, as compared with the 55-ounce poncho made of cotton fabric. Both are coated with approximately the same synthetic resin coating to make them waterproof.

The new poncho is constructed of nylon, woven from yarn spun from a continuous filament, and is one of the first Army uses of such fabric. It is provided with grommets and eyelets which permit its use as a tent when two or more are hooked together, a foxhole cover, a ground sheet to protect men or material from ground moisture, or a moisture-impervious bedroll. Under present plans, the new poncho will be issued in South Pacific areas in place of the raincoat now being used, which is made of a cotton coated fabric and weighs about 40 ounces. It has been found that soldiers prefer the poncho to the raincoat, since it serves more utilitarian purposes. Because of the moisture conditions in the tropics, the poncho is one article the soldier always keeps with him, according to reports from these areas.

Because of its versatility, the new waterproof poncho, light in weight as it is, may eventually do away with tissue of shelter halves in tropical combat areas, according to reports by observers. If this is the case, soldiers will be relieved of a great deal of their "pack" burden, since they now carry both shelter-half and raincoat in some areas. The new poncho has been tested satisfactorily to withstand temperature variations and has demonstrated its water impenetrability.

## Viscose Production Expansion Described

American Viscose Corp. is rapidly completing installation and conversion of equipment for producing higher-strength viscose rayon yarn for use in tire cords and fabrics, as part of the War Production Board's program to provide sufficient rayon for airplane and military tires and for the manufacture of synthetic rubber tires. Final plans call for a total annual production by the company of approximately 110,000,000 pounds of higher-strength rayon yarn for use in tires. This represents nearly one-half of the approximately 240,000,000 pounds of rayon tire cord yarn planned for in the War Production Board's program.

The greater part of the company's output will be produced at its Front Royal, Va., plant, which is being enlarged to manufacture 82,000,000 pounds of rayon tire cord annually. The new facilities at this plant will be in complete operation, it is expected, before the end of the first quarter of 1945. The company's Lewiston, Pa., plant, which is converting existing equipment to make approximately 22,000,000 pounds annually of tire cord yarn, expects to commence production of this type of yarn about June 1. The Marcus Hook, Pa., plant will produce approximately 6,000,000 pounds of tire cord yarn annually and was to finish conversion of equipment for this purpose by May 1. This production represents the most extensive program undertaken by any rayon company to carry out the War Production Board's plans to provide the rayon required for immediate military needs and for the nation's synthetic rubber tire program.

## Butterworth & Sons Co. Re-organization Benefits Junior Executives

Following consultations with the company's counsel, a plan for the re-organization of H. W. Butterworth & Sons Co. was evolved and approved by the board of directors recently, which would enable junior executives, superintendents, foremen and others connected with the company in executive or supervisory capacity to secure stock and thus have a definite interest in the growth of the firm. The plan also made it possible for the investors and decedents' estates now holding stock in the company to exchange it for an obligation of the company and so facilitate the repayment of their investment.

In this re-organization plan, there were two problems to be solved: (1) the majority of the stock was held by investors and decedents' estates not actively participating in the management of the company. Practically none of the employees of the company, except a limited number of executives, held stock; (2) the complaints of investors and decedents' estates because of the company's failure to declare or pay dividends since 1930.

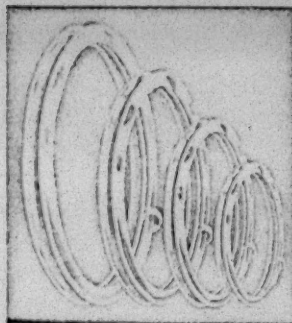
Up to the time the re-organization plan was approved, there were 11,000 shares of company stock—8,757 shares being held by investors and decedents' estates. Included in this number were a certain portion of shares which had been sold in anticipation of re-organization. The plan of re-organization involved the creation of a debenture issue, not to exceed \$300,000. The holders of stock not actively engaged in the management would be given an opportunity to exchange one share of stock for one \$50 bond of the debenture issue. Persons actively associated with the management, who are stockholders, have waived the right to exchange their stock for debentures. These debentures are to be the general direct obligation of the company but are not a lien against the assets of the company unless the company pledges or mortgages its assets or subjects the same to lien. Then the debenture issue will be ratably and equally secured.

The plan of re-organization met with the unanimous approval of stockholders at a special meeting held recently. The final arrangement will probably work out to be 4,500 shares of outstanding common stock, some \$280,000 worth of debentures, with an approximate surplus of \$500,000.

## Symposium On Mildew Resistance Available

A symposium on mildew resistance comprising four technical papers and discussion presented before the American Society for Testing Materials Committee D-13 was recently made available. This booklet should be of interest to wide segments of the textile industry and is pertinent because of the necessity of producing materials that afford maximum resistance to mildew and rot occasioned by severe climatic conditions in various parts of the world. Copies of this 40-page pamphlet in heavy paper cover can be obtained from A.S.T.M. headquarters, 260 S. Broad St., Philadelphia 2, Pa., at 65 cents each.

First Lieut. Charles F. Goodman, who graduated from Clemson College in textile engineering in 1936, has been reported missing in action in Italy since Feb. 29. Before entering the service, Lieutenant Goodman was associated with Ninety-Six (S. C.) Cotton Mill.



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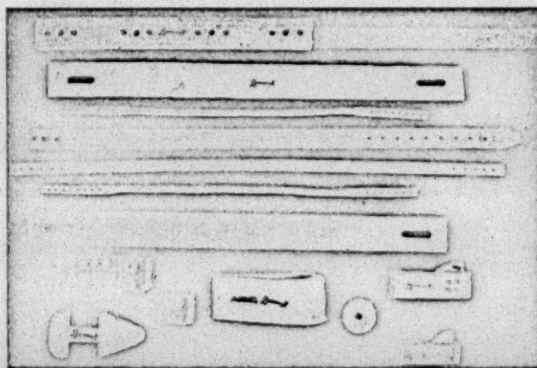


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